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TWELFTH ANNUAL REPORT

RELATING TO THE REGISTRY AND RETURN OF

BIRTHS, MARRIAGES, AND DEATHS,

IN

MICHIGAN FOR THE YEAR 1878.

BY THE

SECRETARY OF STATE

OF THE

STATE OF MICHIGAN.



BY AUTHORITY.

LANSING, MICH.:

W. S. GEORGE & CO., STATE PRINTERS AND BINDERS.

1884.

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J. H. H.  
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MICHIGAN  
DEPARTMENT OF STATE, }  
OFFICE OF THE SECRETARY,  
Lansing, 1884.

HON. JOSIAH W. BEGOLE, *Governor of Michigan.*

SIR,—I have the honor herewith to submit the Twelfth Annual Report of this Department, relating to Births, Marriages, and Deaths, in accordance with the provisions of the Statute Laws of this State.

As with the Registration Report of Michigan for the year 1877, the principal part of the labor of preparing the Report for the year 1878 had also been performed before the commencement of my term of office.

As in former years, for the convenience of comparison, and to enable a better consideration of its individual questions, the present volume has its principal subjects arranged in divisions. The first presents, collectively, a grouping of the most important data pertaining to Births, Marriages, and Deaths, so arranged as to facilitate immediate comparison. The subject of Births is next singly presented in its numerous details; this being succeeded by the subjects of Marriages and Deaths, each treated in a similar manner. In that division pertaining to Deaths the consideration of the causes of Deaths and also the relation of meteorological conditions for the year to the several causes of deaths are carefully examined.

The number of Births in Michigan in 1878, as shown by the returns, was 35,162, a larger number than ever returned in Michigan in any preceding year. There was, also, returned for that year considerably the largest number of marriages ever solemnized in Michigan in one year, the number being 12,221. With the exception of the month of July, the number of marriages in each month, in 1878, exceeded the monthly average for the same months for a period of nine years, as deduced from data collected in this State. These facts are indicative of the material prosperity of Michigan in 1878. The number of deaths returned in 1878 was less than in 1877, and did not greatly exceed the number of deaths returned for several preceding years.

That the present volume may prove a valuable contribution to the subject of social science, and especially so far as it relates to the welfare of Michigan, is my earnest desire.

Respectfully submitted,

A large, elegant handwritten signature in cursive script, reading "Henry A. Conrad". The signature is written in dark ink and features a prominent, sweeping underline that extends to the left.

*Secretary of State.*

# BIRTHS, MARRIAGES, AND DEATHS,

IN MICHIGAN,

DURING THE YEAR 1878.

The number of births, marriages, and deaths, and the excess of births over deaths, for each of the years 1873-1878, may be seen in Exhibit A, the number of births and deaths being shown as returned, and as corrected for omissions in the enumeration. The greatest excess of births over deaths as returned was in 1878; and when the births and deaths are corrected for omissions in the enumeration, the greatest excess is shown to have been in 1874. The average natural annual increase of population as per births and deaths returned during the years 1872-1878 was 19,732; and when the births and deaths are corrected for omissions in the enumeration, the average natural annual increase of population during the years 1872-1878 was 29,099.

EXHIBIT A.—*Births, Marriages, and Deaths in Michigan during the Years 1873 to 1878, inclusive, including those in unknown month, and Excess of Births over Deaths, as Returned, and after they have been Corrected for Omissions in the Enumeration.*

		1873.	1874.	1875.	1876.	1877.	1878.
As Returned.	Marriages.....*	11,873	12,211	11,703	11,610	11,009	12,221
	Births.....	34,608	31,151	31,958	34,235	33,395	35,162
	Deaths.....	14,258	12,500	11,990	12,576	12,919	12,766
	Excess of Births over Deaths....	20,350	18,651	19,968	21,659	20,476	22,396
As Corrected for Omissions.	Births.....	45,088	55,841	46,553	45,172	50,203	52,145
	Deaths.....	20,312	20,090	17,289	18,389	18,341	18,866
	Excess of Births over Deaths....	24,776	35,751	29,264	26,783	31,862	33,279

\* Corrected, for additional returns, up to December 20, 1879.



Many important statements concerning births, marriages, and deaths, in this State may be found in Exhibit B. It may be seen that in the column for 1878 the numbers are generally less than in that for 1877 wherever the number of inhabitants is a factor in the computation, and it should be borne in mind that, while the population of the State is increasing, the population in 1874 was used in computing statements for this column, and allowance is, therefore, not made for the increase of population, and this will probably explain the general decrease in the numbers for 1878.

The average natural daily increase of population as per births and deaths returned was, during the years 1872-1878, 54.04 years, and when the births and deaths are corrected for omissions in the enumeration, the average natural daily increase of population, for the years 1872-1878, was 79.70 years.

**EXHIBIT B.**—*Statements concerning Births, Marriages, and Deaths in Michigan during the Years 1873-1878, inclusive. (According to the Returns of Births, Marriages, or Deaths, as the case may be, except some correction is mentioned.)*

	1873. <sup>a</sup>	1874. <sup>a</sup>	1875. <sup>b</sup>	1876. <sup>b</sup>	1877. <sup>b</sup>	1878. <sup>b</sup>
Inhabitants represented by returns of marriages to one marriage <sup>c</sup> .....	99.54	96.70	112.91	112.92	114.30	109.16
In population represented by marriages, males to one marriage.....	51.97	50.48	59.01	59.01	59.73	57.05
In population represented by marriages, females to one marriage.....	47.58	46.22	53.90	53.91	54.57	52.11
Male inhabitants at ages at which marriages occurred to one marriage.....	31.79	30.89	d	d	d	d
Female inhabitants at ages at which marriages occurred to one marriage.....	32.30	30.32	d	d	d	d
Inhabitants represented by births to each child returned.....	34.07	37.89	41.52	38.56	39.82	37.78
Inhabitants, males to each male child returned....	34.35	37.84	41.98	38.86	40.33	38.09
Inhabitants, females to each female child returned	33.90	38.08	41.24	38.38	39.42	37.60
Inhabitants, females aged 16 to 45 to each child returned.....	7.32	8.16	d	d	d	d
Children born to 100 females aged 16 to 45.....	13.65	12.25	d	d	d	d
Inhabitants represented by deaths to one death...	82.46	93.77	110.25	104.74	102.28	103.32
Inhabitants, males to one death of male.....	80.16	91.76	107.09	101.84	101.08	103.83
Inhabitants, females to one death of female.....	85.34	96.59	115.14	109.21	104.51	103.64
Deaths, males to 100 females.....	116.10	114.83	117.58	117.27	113.03	109.04
Births, males to 100 females.....	107.67	109.88	107.43	108.05	106.94	108.02
Total population of State, males to 100 females....	109.22	109.22	100.47	109.47	109.47	109.47
Births to one death.....	2.43	2.49	2.67	2.72	2.58	2.75
Births, males to one death of male.....	2.34	2.44	2.56	2.63	2.52	2.75
Births, females to one death of female.....	2.52	2.55	2.80	2.85	2.67	2.77
Children born of which the sex was unknown or not stated.....	68.00	49.00	82.00	56.00	59.00	67.00
Decedents of which the sex was unknown or not stated.....	17.00	31.00	58.00	59.00	52.00	52.00
Natural daily increase of population, as per births and deaths returned.....	55.76	51.10	54.71	59.34	56.10	61.35
Natural daily increase of population, when returns are corrected as in 4th line of Exhibit A, page 5, and exhibit C, page, 109.....	67.88	97.95	80.17	73.38	87.29	91.17

<sup>a</sup> In computing statements for this column, the inhabitants, June 1, 1870, were used.

<sup>b</sup> In computing statements for this column, the inhabitants in 1874 were used.

<sup>c</sup> Marriages, corrected for additional returns up to December 20, 1879.

<sup>d</sup> Population for 1874, by ages, cannot be ascertained.

Table I. shows the number of births, marriages, and deaths in Michigan in 1878 during certain specified periods of time. The births and deaths are shown as returned and as corrected for omissions in the enumeration. Using the number of births, marriages, and deaths which probably occurred in 1878, according to the corrections, the computation shows that, in round numbers, one child was born every 10 minutes, one marriage solemnized every 40 minutes, and one person died every 30 minutes, in this State.

TABLE I.—*The number of Marriages, Births, and Deaths, and Excess of Births over Deaths in the State of Michigan during the Year 1878, and the Average Number and Excess during Specified Periods of Time within the Year 1878, as Returned, and the same for Births and Deaths as Corrected for Omissions in the Enumeration.*

PERIODS OF TIME,—1878.		Marriages, 1878.	Births, 1878.	Deaths, 1878.	Excess of Births over Deaths.
As Returned.	Year, 1878 <sup>a</sup> .....	12,221.00	35,162.00	12,766.00	22,396.00
	Quarter.....	3,055.25	8,790.50	3,191.50	5,599.00
	Month.....	1,018.42	2,930.17	1,063.83	1,866.34
	Week.....	235.02	676.19	245.50	430.69
	Day.....	33.48	96.33	34.98	61.35
Births and Deaths as Corrected. <sup>b</sup>	Year, 1878 <sup>a</sup> .....		52,145.00	18,806.00	33,279.00
	Quarter.....		13,036.25	4,716.50	8,319.75
	Month.....		4,345.42	1,572.17	2,773.25
	Week.....		1,002.79	362.81	639.98
	Day.....		142.86	51.69	91.17

<sup>a</sup> Unknown month included.

<sup>b</sup> Corrected as if enumerated in months of occurrence.



## VITAL STATISTICS OF MICHIGAN, 1878.

EXHIBIT 1.—By Months, the Births, Deaths, and Excess of Births over Deaths in Michigan during each of the Years 1873 to 1878, inclusive, according to the Returns.

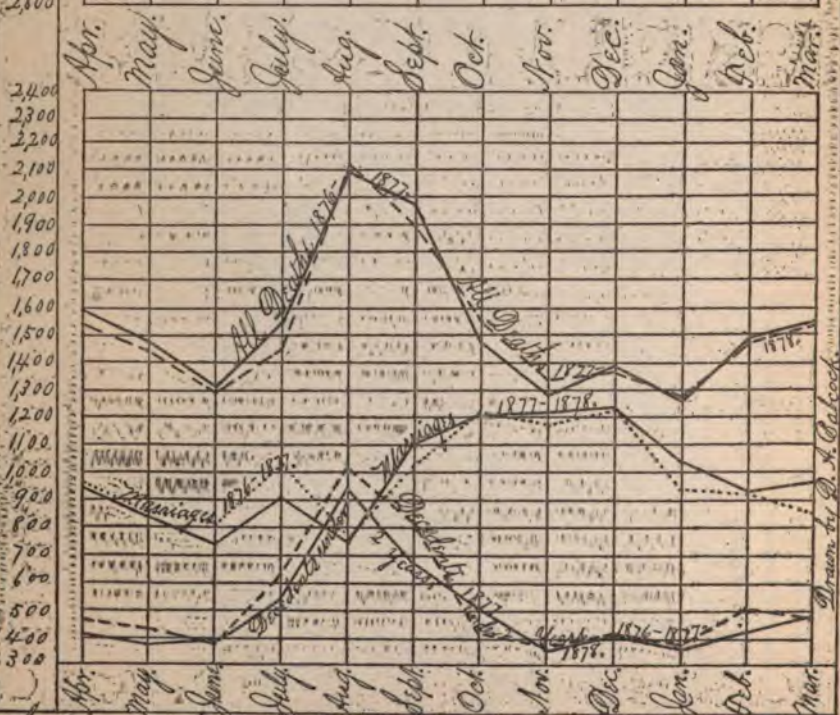
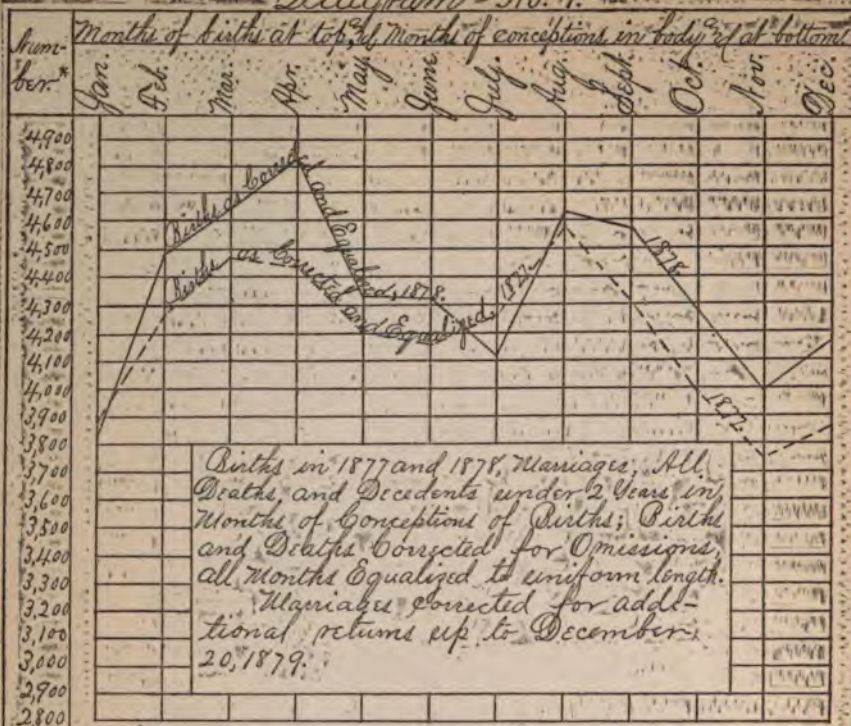
	TOTAL. <sup>a</sup>	MONTHS.											
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1873.	34,538	2,112	2,249	2,847	2,711	2,794	2,569	2,915	3,342	3,436	3,165	3,017	3,351
Deaths.....	14,189	859	1,104	1,248	1,174	1,121	1,040	1,176	1,555	1,471	1,233	1,067	1,133
Excess of births.....	20,349	1,253	1,145	1,599	1,537	1,673	1,529	1,739	1,887	1,965	1,932	1,950	2,215
1874.	31,106	1,899	1,854	2,462	2,464	2,586	2,558	2,761	3,077	2,972	2,726	2,736	2,921
Deaths.....	12,454	655	672	919	1,102	1,071	896	965	1,388	1,517	1,211	968	1,120
Excess of births.....	18,652	1,244	1,182	1,543	1,362	1,515	1,662	1,796	1,689	1,455	1,515	1,768	1,801
1875.	31,898	2,089	2,121	2,415	2,710	2,722	2,530	2,725	3,103	3,081	2,819	2,727	2,856
Deaths.....	11,919	795	898	1,045	1,003	1,022	898	893	1,222	1,219	1,080	928	1,065
Excess of births.....	19,979	1,293	1,223	1,370	1,707	1,700	1,732	1,832	1,881	1,862	1,739	1,799	1,791
1876.	34,131	2,283	2,332	2,744	2,730	2,870	2,739	3,014	3,124	3,110	3,039	2,921	3,205
Deaths.....	12,545	685	800	975	978	970	855	1,079	1,507	1,423	1,131	989	1,153
Excess of births.....	21,586	1,598	1,532	1,769	1,752	1,900	1,884	1,935	1,617	1,687	1,908	1,932	2,052
1877.	33,324	2,212	2,246	2,690	2,655	2,683	2,657	2,809	3,227	3,048	3,015	2,847	3,145
Deaths.....	12,863	766	843	990	978	976	875	1,040	1,559	1,400	1,221	1,060	1,155
Excess of births.....	20,461	1,446	1,403	1,700	1,677	1,707	1,782	1,809	1,668	1,648	1,794	1,787	1,990
1878.	33,120	2,201	2,414	2,836	2,937	2,805	2,797	2,835	3,295	3,290	3,266	3,061	3,423
Deaths.....	12,742	730	789	930	1,029	923	870	1,017	1,371	1,343	1,190	1,181	1,369
Excess of births.....	20,388	1,471	1,625	1,906	1,908	1,882	1,927	1,818	1,924	1,917	2,076	1,880	2,054
Monthly averages of excess for 1872 to 1878, inclusive	19,720	1,362	1,339	1,592	1,579	1,668	1,714	1,763	1,666	1,656	1,721	1,772	1,896

<sup>a</sup> Unknown month excluded.





Diagram No. 1.



Scale = 700 to the inch.

Designed by Henry B. Baker.

**EXHIBIT 2.**—*Births in Michigan, by Months, during the Year 1878, and Marriages and Deaths during the Months of Conception of same, showing the Births and Deaths as Returned, as Corrected for Omissions in Enumerating, and Equalized for Increase of Population during the Year,—all Months Equalized to Uniform length of 30.44 days.*

	Total <sup>a</sup>	MONTHS,—1878.												Av. Mo.
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Births, 1878, equalized to months of uniform length.....	35,144	2,162	2,624	2,785	2,980	2,755	2,838	2,784	3,236	3,307	3,207	3,105	3,361	2,928.67
Births, 1878, corrected for omissions in enumerating, and equalized to months of uniform length.	52,178	3,811	4,491	4,645	4,829	4,331	4,328	4,112	4,625	4,570	4,278	3,995	4,163	4,348.17
		MONTHS,—1877.										1878.		Av. Mo.
		Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	
Marriages, <sup>b</sup> equalized to months of uniform length.....	11,867	947	834	740	908	753	1,103	1,201	1,207	1,235	1,036	931	972	988.92
Deaths, equalized to months of uniform length.....	12,708	992	958	888	1,021	1,531	1,421	1,199	1,075	1,134	717	858	914	1,059.00
Deaths, corrected for omissions in enumerating, and equalized to months of uniform length.	18,283	1,534	1,441	1,298	1,450	2,109	1,897	1,551	1,346	1,372	1,272	1,481	1,532	1,523.58
Deaths, corrected and equalized, equalized to months of uniform length.....	18,697	1,583	1,482	1,329	1,481	2,147	1,924	1,568	1,356	1,377	1,326	1,538	1,586	1,558.08

<sup>a</sup> Excluding unknown month.

<sup>b</sup> Corrected for additional returns up to Dec. 20, 1879.

C—1878.



EXHIBIT D.—Grouping the Evidence of the Vital Statistics on the subject of the Comparative Natural Increase of Native and of Foreign-born Inhabitants of Michigan, by Excess of Births over Deaths, according to the Returns, the Evidence Exhibited Covering the Years 1873 to 1878, inclusive.

BIRTHS, DEATHS, AND EXCESS OF BIRTHS.	1873.			1874.			1875.			1876.			1877.			1878.		
	Total.	Both Parents of Child. of Native-born.	Both Parents of Child. of Foreign-born.	Total.	Both Parents of Child. of Native-born.	Both Parents of Child. of Foreign-born.	Total.	Both Parents of Child. of Native-born.	Both Parents of Child. of Foreign-born.	Total.	Both Parents of Child. of Native-born.	Both Parents of Child. of Foreign-born.	Total.	Both Parents of Child. of Native-born.	Both Parents of Child. of Foreign-born.	Total.	Both Parents of Child. of Native-born.	Both Parents of Child. of Foreign-born.
Births by parent nativity.....	a 34,608	16,292	11,946	a 31,151	13,341	10,517	a 31,358	14,226	11,120	a 34,235	15,551	11,901	a 33,365	15,270	11,557	a 35,162	16,323	11,992
Deaths by nativ- ity.....	b 14,248	c 11,600	d 2,334	b 12,500	c 9,937	d 2,128	b 11,690	c 9,573	d 2,106	b 12,576	c 10,147	d 2,078	b 12,919	c 10,305	d 2,251	b 12,766	c 10,183	d 2,237
Excess of births over deaths....	20,360	4,692	9,612	18,651	3,404	8,389	19,668	4,653	9,014	21,659	5,404	9,823	20,476	4,965	9,306	22,396	6,140	9,755

a Includes children of mixed parentage and those where the nativity of one or both parents is unknown.

b Includes deaths of persons of unknown nativity.

c Includes all deaths of persons born in the United States<sup>a</sup>, whether born of native or of foreign-born parents.

d Includes only persons who were born in foreign countries.

The evidence of the Vital Statistics for the years 1873-1878, on the subject of the comparative natural increase of population in Michigan is shown in Exhibit D. This increase (the excess of births over deaths) is very much greater among the foreign-born than among the native-born. It should be borne in mind that most of the infants and young children who die in this State are native-born, and it is among them the death-rate is proportionately very large.

BIRTHS, MARRIAGES, AND DEATHS.

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**EXHIBIT E.**—*Showing, for the State and Counties of Michigan, the Number of Births and Deaths returned to this Department as having occurred out of Michigan during the year 1878.*

STATE AND COUNTIES.	1878.		COUNTIES.	1878.	
	Births.	Deaths.		Births.	Deaths.
STATE.....	271	75	Kalkaska.....	3	-----
Alcona.....	7	-----	Kent.....	13	6
Allegan.....	-----	2	Lapeer.....	4	1
Alpena.....	2	-----	Leelanaw.....	2	-----
Antrim.....	1	2	Lenawee.....	12	5
Barry.....	1	1	Livingston.....	2	-----
Bay.....	12	4	Macomb.....	4	4
Benzie.....	1	-----	Manistee.....	2	-----
Berrien.....	8	-----	Mason.....	3	1
Branch.....	4	1	Mecosta.....	3	-----
Calhoun.....	5	2	Menominee.....	4	-----
Cass.....	4	4	Midland.....	5	-----
Charlevoix.....	2	-----	Monroe.....	1	2
Cheboygan.....	4	-----	Montcalm.....	10	1
Clinton.....	9	-----	Muskegon.....	4	2
Delta.....	1	-----	Newaygo.....	3	-----
Eaton.....	3	2	Osceola.....	8	-----
Genesee.....	6	1	Saginaw.....	12	7
Grand Traverse.....	2	-----	Sanilac.....	9	-----
Gratiot.....	4	-----	Shiawassee.....	4	2
Houghton.....	6	2	St. Clair.....	13	3
Huron.....	6	-----	St. Joseph.....	4	2
Ingham.....	6	-----	Tuscola.....	5	-----
Ionia.....	5	1	Van Buren.....	5	1
Isabella.....	1	-----	Washtenaw.....	3	2
Jackson.....	12	1	Wayne.....	14	12
Kalamazoo.....	4	1	Wexford.....	3	-----

TABLE II.—Exhibiting, by Sex, the Population in 1874, the Number of Marriages, Births, and Deaths, and the Excess of Births over Deaths, in Michigan during the Year 1878, according to the Returns.

STATE AND COUNTIES.	POPULATION, 1874.			BIRTHS, 1878.			DEATHS, 1878.			EXCESS OF BIRTHS OVER DEATHS. <sup>a</sup>		
	Total.	SEX.		Total.	SEX.		Total.	SEX.		Total.	SEX.	
		Males.	Females.		Males.	Fe- males.		Males.	Fe- males.		Males.	Fe- males.
STATE.....	1,334,031	637,134	636,847	35,162	18,224	16,871	67	12,766	6,632	52	11,592	15
Alcona.....	1,214	688	526	34	15	19	—	19	13	—	2	13
Allegan.....	32,381	16,976	15,405	813	409	403	1	278	139	1	535	265
Alpena.....	4,807	2,808	1,999	194	108	85	1	60	36	1	134	62
Antrim..... <sup>b</sup>	3,602	1,654	1,948	90	45	45	—	33	18	15	27	30
Baraga..... <sup>c</sup>	—	—	—	54	31	23	—	23	9	14	22	9
Barry.....	22,651	11,538	10,433	482	253	229	—	139	63	76	343	153
Bay.....	24,892	13,657	11,175	926	451	469	—	247	142	105	673	364
Benzie.....	2,663	1,422	1,241	84	43	41	—	13	9	4	34	37
Berrien.....	35,029	17,942	17,087	771	397	372	2	313	161	150	236	222
Branch.....	25,726	13,041	12,685	482	244	237	1	204	109	94	135	143
Calhoun.....	35,655	18,156	17,499	594	289	293	2	390	126	131	173	162
Cass.....	20,525	10,592	9,933	447	234	213	—	223	116	107	118	106
Charlevoix.....	2,360	1,280	1,080	118	63	55	—	32	18	14	45	41
Cheboygan.....	3,070	1,706	1,364	120	49	70	1	71	32	38	17	32
Chippewa..... <sup>d</sup>	2,170	1,222	948	89	47	52	—	41	25	16	58	36
Clare.....	1,354	745	609	80	36	44	—	20	10	9	26	35
Clinton.....	23,661	12,162	11,499	615	315	300	—	247	125	122	368	178
Crawford..... <sup>e</sup>	—	—	—	13	6	7	—	4	3	1	3	6
Delta.....	4,741	2,832	1,859	161	82	79	—	42	28	14	54	65



# BIRTHS, MARRIAGES, AND DEATHS.

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Eaton.....	26,907	13,875	296	605	295	309	1	273	125	148	332	170	161	1
Emmet.....	1,272	603	55	104	50	53	1	66	36	30	38	14	23	1
Genesee.....	31,508	17,032	391	708	377	391	---	306	149	157	462	238	234	---
Gladwin.....	265	120	4	18	10	8	---	7	5	2	11	5	6	---
Grand Traverse.....	5,349	2,548	52	148	84	64	---	49	20	29	99	64	35	---
Gratiot.....	19,885	7,304	133	416	223	193	---	111	50	61	305	173	132	---
Hillsdale.....	31,566	15,595	371	510	264	246	---	288	146	142	222	118	104	---
Houghton.....	19,030	11,013	129	914	469	442	3	263	155	105	3	314	337	---
Huron.....	11,964	6,614	120	570	298	272	---	101	54	47	468	244	225	---
Ingham.....	29,193	13,960	395	593	312	280	1	193	106	87	400	206	193	1
Ionia.....	28,376	13,538	276	621	316	304	1	230	114	115	1	202	189	---
Iosco.....	4,575	1,899	46	68	39	29	---	52	33	19	16	6	10	---
Isabella.....	6,039	2,786	56	229	116	113	---	75	49	26	154	67	87	---
Isle Royal.....	4	4	---	---	---	---	---	---	---	---	---	---	---	---
Jackson.....	37,088	19,853	358	779	411	308	---	347	190	157	432	221	211	---
Kalamazoo.....	82,284	15,701	362	593	325	267	1	281	144	135	1	312	131	---
Kalkaska.....	1,259	692	39	66	29	37	---	18	9	9	48	20	28	---
Kent.....	62,671	32,576	579	1,631	829	708	4	599	265	291	3	1,071	563	1
Keweenaw.....	5,411	3,233	36	269	141	126	2	52	30	21	1	217	105	1
Lake.....	1,813	798	16	69	33	36	---	22	8	14	47	25	22	---

\* The figures with the minus sign placed before them indicate the excess of deaths over births.

b No returns of deaths from the township of Central Lake.

c The population of Baraga county is included in population of Houghton county, and cannot be ascertained.

d No returns of births nor deaths from the townships of Detour and Sugar Island.

e The population of Crawford county is included in population of Kalkaska county and cannot be ascertained.

f No returns of deaths from the township of Oscoda.

g No returns of births from the township of Rolland. Returns of deaths received too late for compilation.

h No returns of births, marriages, nor deaths.

EXHIBIT D.—Grouping the Evidence of the Vital Statistics on the subject of the Comparative Natural Increase of Native and of Foreign-born Inhabitants of Michigan, by Excess of Births over Deaths, according to the Returns, the Evidence Exhibited Covering the Years 1873 to 1878, inclusive.

BIRTHS, DEATHS, AND EXCESS OF BIRTHS.	1873.			1874.			1875.			1876.			1877.			1878.		
	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.
Births by parent nativity.....	a 34,608	16,202	11,946	a 31,151	13,341	10,517	a 31,658	14,226	11,120	a 34,235	15,551	11,901	a 33,395	15,270	11,557	a 35,102	16,323	11,992
Deaths by nativ- ity.....	b 14,248	c 11,600	d 2,334	b 12,500	c 9,937	d 2,128	b 11,990	c 9,573	d 2,106	b 12,576	c 10,147	d 2,078	b 12,919	c 10,305	d 2,251	b 12,768	c 10,183	d 2,237
Excess of births over deaths....	20,360	4,602	9,612	18,651	3,404	8,389	19,668	4,653	9,014	21,659	5,404	9,823	20,476	4,965	9,306	22,396	6,140	9,755

a Includes children of mixed parentage and those where the nativity of one or both parents is unknown.

b Includes deaths of persons of unknown nativity.

c Includes all deaths of persons born in the United States, whether born of native or of foreign-born parents.

d Includes only persons who were born in foreign countries.

The evidence of the Vital Statistics for the years 1873-1878, on the subject of the comparative natural increase of population in Michigan is shown in Exhibit D. This increase (the excess of births over deaths) is very much greater among the foreign-born than among the native-born. It should be borne in mind that most of the infants and young children who die in this State are native-born, and it is among them the death-rate is proportionately very large.

**EXHIBIT E.**—*Showing, for the State and Counties of Michigan, the Number of Births and Deaths returned to this Department as having occurred out of Michigan during the year 1878.*

STATE AND COUNTIES.	1878.		COUNTIES.	1878.	
	Births.	Deaths.		Births.	Deaths.
STATE.....	271	75	Kalkaska.....	3	-----
Alcona.....	7	-----	Kent.....	13	6
Allegan.....	-----	2	Lapeer.....	4	1
Alpena.....	2	-----	Leelanaw.....	2	-----
Antrim.....	1	2	Lenawee.....	12	5
Barry.....	1	1	Livingston.....	2	-----
Bay.....	12	4	Macomb.....	4	4
Benzie.....	1	-----	Manistee.....	2	-----
Berrien.....	8	-----	Mason.....	3	1
Branch.....	4	1	Mecosta.....	3	-----
Calhoun.....	5	2	Menominee.....	4	-----
Cass.....	4	4	Midland.....	5	-----
Charlevoix.....	2	-----	Monroe.....	1	2
Cheboygan.....	4	-----	Montcalm.....	10	1
Clinton.....	9	-----	Muskegon.....	4	2
Delta.....	1	-----	Newaygo.....	3	-----
Eaton.....	3	2	Osceola.....	8	-----
Genesee.....	6	1	Saginaw.....	12	7
Grand Traverse.....	2	-----	Sanilac.....	9	-----
Gratiot.....	4	-----	Shiawassee.....	4	2
Houghton.....	6	2	St. Clair.....	13	3
Huron.....	6	-----	St. Joseph.....	4	2
Ingham.....	6	-----	Tuscola.....	5	-----
Ionia.....	5	1	Van Buren.....	5	1
Isabella.....	1	-----	Washtenaw.....	3	2
Jackson.....	12	1	Wayne.....	14	12
Kalamazoo.....	4	1	Wexford.....	3	-----



TABLE II.—*Exhibiting, by Sex, the Population in 1874, the Number of Marriages, Births, and Deaths, and the Excess of Births over Deaths, in Michigan during the Year 1878, according to the Returns.*

STATE AND COUNTIES.	POPULATION, 1874.			Marriages, 1878.	BIRTHS, 1878.			DEATHS, 1878.			EXCESS OF BIRTHS OVER DEATHS. <sup>a</sup>		
	Total.	SEX.			Total.	SEX.		Total.	SEX.		Total.	SEX.	
		Males.	Females.			Males.	Fe- males.		Un- known.	Males.		Fe- males.	Un- known.
STATE.....	1,334,031	637,134	696,847	12,221	35,162	18,224	16,871	67	12,705	6,632	52	11,592	15
Alcona.....	1,214	688	525	6	34	15	10	.....	19	13	6	2	13
Allegan.....	32,381	16,976	15,405	275	813	409	403	1	278	139	1	270	205
Alpena.....	4,307	2,308	1,999	54	194	108	85	1	60	36	23	72	62
Antrim..... <sup>b</sup>	3,002	1,634	1,348	32	90	45	45	.....	33	18	15	27	30
Baraga..... <sup>c</sup>	.....	.....	.....	7	54	31	23	.....	23	9	14	22	9
Barry.....	22,051	11,538	10,463	212	482	253	229	.....	139	63	76	190	153
Bay.....	24,832	13,657	11,175	246	920	451	469	.....	247	142	105	309	304
Benzie.....	2,633	1,422	1,241	21	84	43	41	.....	13	9	4	34	37
Berrien.....	35,029	17,942	17,087	422	771	397	372	2	313	161	150	236	222
Branch.....	25,726	13,041	12,685	310	482	244	237	1	204	109	94	135	143
Calhoun.....	35,655	18,156	17,499	321	594	289	293	2	290	136	131	173	162
Cass.....	20,525	10,522	9,933	202	447	224	213	.....	223	116	107	118	106
Charlevoix.....	2,300	1,280	1,020	29	118	63	55	.....	32	18	14	45	41
Cheboygan.....	3,070	1,706	1,364	40	120	49	70	1	71	32	38	17	32
Chippewa..... <sup>d</sup>	2,170	1,222	948	12	99	47	52	.....	41	25	16	22	36
Clare.....	1,354	745	609	16	80	36	44	.....	20	10	9	26	35
Clinton.....	23,661	12,162	11,499	223	615	315	300	.....	247	125	122	190	178
Crawford..... <sup>e</sup>	.....	.....	.....	.....	13	6	7	.....	4	3	1	3	6
Delta.....	4,741	2,832	1,859	43	161	82	79	.....	42	28	14	54	65

BIRTHS, MARRIAGES, AND DEATHS.

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Eaton.....	29,907	13,875	13,032	266	605	295	300	1	273	125	148	332	170	161	1
Emmet .....	1,272	629	603	55	104	50	53	1	65	36	30	38	14	23	1
Genesee.....	34,568	17,536	17,032	391	708	377	391	-----	306	149	157	402	228	234	-----
Gladwin.....	265	145	130	4	18	10	8	-----	7	5	2	11	5	6	-----
Grand Traverse.....	5,349	2,801	2,548	52	148	84	64	-----	49	20	29	99	64	35	-----
Grafton.....	13,886	7,304	6,582	133	416	223	193	-----	111	50	61	305	173	182	-----
Hillsdale.....	31,568	15,971	15,595	371	510	264	246	-----	288	146	142	222	118	104	-----
Houghton..... <sup>c</sup>	19,030	11,013	8,017	159	914	469	442	3	263	155	105	651	314	337	-----
Huron .....	11,964	6,614	5,350	129	570	298	272	-----	101	54	47	469	244	225	-----
Ingham .....	29,193	15,204	13,989	395	593	312	280	1	193	106	87	400	206	193	1
Ionia .....	28,376	14,788	13,588	276	621	316	304	1	230	114	115	1	202	189	-----
Iosco .....	4,575	2,706	1,889	46	68	39	29	-----	52	33	19	16	6	10	-----
Isabella..... <sup>d</sup>	6,059	3,273	2,786	56	229	116	113	-----	75	49	26	154	67	87	-----
Istle Royal..... <sup>b</sup>	4	4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Jackson .....	37,988	19,883	18,135	358	779	411	398	-----	347	190	157	432	221	211	-----
Kalamazoo.....	32,284	16,583	15,701	362	563	325	297	1	281	144	136	1	312	181	-----
Kalkaska..... <sup>e</sup>	1,259	692	567	30	66	29	37	-----	18	9	9	48	20	28	-----
Kent .....	62,671	32,576	30,065	579	1,631	829	798	4	560	266	291	3	1,071	563	1
Keweenaw.....	5,411	3,233	2,178	26	299	141	126	2	52	30	21	1	217	105	1
Lake .....	1,813	1,015	798	16	69	33	36	-----	22	8	14	47	25	22	-----

<sup>a</sup> The figures with the minus sign placed before them indicate the excess of deaths over births.

<sup>b</sup> No returns of deaths from the township of Central Lake.

<sup>c</sup> The population of Baraga county is included in population of Houghton county, and cannot be ascertained.

<sup>d</sup> No returns of births nor deaths from the townships of Detour and Sugar Island.

<sup>e</sup> The population of Crawford county is included in population of Kalkaska county and cannot be ascertained.

<sup>f</sup> No returns of deaths from the township of Oscoda.

<sup>g</sup> No returns of births from the township of Rolland. Returns of deaths received too late for compilation.

<sup>h</sup> No returns of births, marriages, nor deaths.



TABLE II.—CONTINUED.

COUNTIES.	POPULATION, 1874.			Marriages, 1878.	BIRTHS, 1878.			DEATHS, 1878.			EXCESS OF BIRTHS OVER DEATHS.					
	SEX.		Total.		SEX.			Total.	SEX.			Total.	SEX.			
	Males.	Females.			Males.	Fe- males.	Un- known.		Males.	Fe- males.	Un- known.		Males.	Fe- males.	Un- known.	
Lapeer.....	25,140	13,065	12,045	229	540	279	260	1	180	102	77	1	360	177	183	.....
Leelanaw.....	5,031	2,692	2,339	27	162	90	72	.....	49	22	27	.....	113	68	45	.....
Lenawee.....	46,084	23,256	22,828	408	752	404	344	4	330	167	162	1	422	237	182	3
Livingson.....	20,329	10,569	9,760	135	449	213	236	.....	156	72	84	.....	293	141	152	.....
Mackinac..... <sup>b</sup>	1,406	765	731	25	37	19	18	.....	15	4	11	.....	22	15	7	.....
Macomb.....	28,305	14,357	13,938	233	693	379	313	1	279	147	132	.....	414	232	181	1
Manistee.....	8,471	4,792	3,679	75	355	190	165	.....	84	45	39	.....	271	145	126	.....
Manitou.....	637	364	293	11	30	16	14	.....	6	3	3	.....	24	13	11	.....
Marquette.....	21,946	12,893	9,053	96	721	379	342	.....	227	141	86	.....	494	238	256	.....
Mason.....	5,361	2,971	2,390	71	183	94	89	.....	61	40	21	.....	122	54	68	.....
Mecosta.....	9,132	4,874	4,258	102	265	126	137	2	73	31	42	.....	192	95	95	2
Menominee..... <sup>c</sup>	3,490	2,213	1,277	35	45	23	22	.....	9	6	3	.....	38	17	19	.....
Midland.....	4,765	2,593	2,172	54	169	83	86	.....	52	18	34	.....	117	65	52	.....
Missaukee.....	606	335	211	6	38	17	21	.....	21	11	10	.....	17	6	11	.....
Monroe.....	30,111	15,392	14,809	305	859	445	412	2	310	159	148	3	549	286	264	-1
Montcalm.....	20,815	11,311	9,504	233	605	333	271	1	198	95	101	2	407	238	170	-1
Muskegon..... <sup>d</sup>	19,375	10,761	8,614	161	533	299	234	.....	171	88	83	.....	362	211	151	.....
Newaygo.....	8,758	4,879	3,879	76	243	135	105	3	78	43	33	2	165	92	72	1
Oakland.....	38,082	19,446	18,635	301	641	321	316	4	331	172	156	3	310	149	160	1
Oceana.....	8,360	4,581	3,779	81	275	134	141	.....	76	34	42	.....	199	100	99	.....
Ogemaw.....	207	153	54	3	5	3	2	.....	6	.....	6	.....	-1	3	-4	.....

# BIRTHS, MARRIAGES, AND DEATHS.

xxi

Ontonagon.....	2,408	1,278	1,130	10	69	34	35	.....	33	14	19	.....	38	20	16	.....
Osceola.....	6,216	3,491	2,725	75	257	145	111	1	89	44	45	.....	108	101	66	1
Otsego.....	298	162	76	7	23	14	9	.....	2	2	.....	.....	21	12	9	.....
Ottawa.....	20,929	15,789	14,140	216	859	423	434	2	249	133	116	.....	610	250	318	2
Presque Isle.....	1,615	851	764	4	92	45	47	.....	26	11	15	.....	66	34	32	.....
Roscommon.....	276	187	89	3	5	4	1	.....	6	6	.....	.....	-1	-2	1	.....
Saginaw.....	48,409	25,968	23,441	371	1,391	715	676	.....	524	257	265	2	867	458	411	-2
Sanilac.....	16,292	8,652	7,040	152	623	339	283	1	135	71	63	1	488	268	220	.....
Schoolcraft..... <sup>e</sup>	1,290	824	463	9	14	6	8	.....	4	2	2	.....	10	4	6	.....
Shiawassee..... <sup>f</sup>	21,773	11,255	10,508	165	510	256	254	.....	137	71	66	.....	373	185	188	.....
St. Clair..... <sup>g</sup>	40,688	21,181	19,507	299	977	522	455	.....	319	171	148	.....	638	351	307	.....
St. Joseph.....	25,906	13,267	12,639	314	489	246	243	.....	204	102	102	.....	285	144	141	.....
Tuscola.....	16,998	8,550	8,048	189	515	262	253	.....	150	79	71	.....	365	183	182	.....
Van Buren.....	20,156	15,002	14,094	268	616	317	298	1	248	135	112	1	368	182	186	.....
Washtenaw.....	38,723	19,553	19,170	266	589	306	281	2	330	176	153	1	259	130	128	1
Wayne..... <sup>h</sup>	144,903	72,406	72,597	1,049	5,192	2,765	2,410	17	1,940	1,038	896	15	3,243	1,727	1,514	2
Wexford.....	3,011	1,752	1,259	46	199	95	101	3	86	49	36	1	113	46	65	2

<sup>a</sup> The figures with the minus sign placed before them indicate the excess of deaths over births.

<sup>b</sup> No returns of births nor deaths from the townships of Hendricks, Holmes, Newton, and St. Ignace.

<sup>c</sup> No returns of births from the townships of Cedarville, Breitung, and Spaulding, and no returns of deaths from the townships of Cedarville, Ingallston, Menominee, and Spaulding.

<sup>d</sup> No returns of births nor deaths from the township of Montague.

<sup>e</sup> No returns of births nor deaths from the township of Munising, and no returns of deaths from the township of Onota.

<sup>f</sup> No returns of births nor deaths from the township of Burns.

<sup>g</sup> No returns of deaths from the township of St. Clair.

<sup>h</sup> No returns of deaths from the township of Grosse Point.





## BIRTHS, 1878.

Judging from the tables of births compiled in the State Department, the year 1878 was an unusually fruitful one, the enumeration of the births was more thoroughly performed than usual, or the returns of births more complete than in previous years. During the year 1878, according to the returns to the State Department, 35,162 births occurred in Michigan,—the largest number ever returned as having occurred in this State in any one year. This, however, probably does not include all the births which actually occurred in this State in 1878,—only about 67.41 per cent. of them, as may be seen in the following exhibits. According to the compiler's method of correcting the number of births returned, in order to make it equal the number which probably occurred, the number returned should be increased by about 48.34 per cent. in order to make it equal the number which actually occurred, which number, as shown by Exhibit A, page 5, including the births in unknown month, is 52,145.

YEARS.	Per Cent. of Births Returned.	Per Cent. of Births Added as Correction for Omissions.
1871.....	70.00	42.86
1872.....	64.95	43.95
1873.....	76.72	30.34
1874.....	55.75	79.37
1875.....	68.61	45.76
1876.....	75.73	32.04
1877.....	66.47	50.44
1878.....	67.41	48.34
Average for 8 years..	68.21	46.64

The average number of births during each of certain specified periods of time, including unknown month, is as follows:

PERIODS OF TIME.	Births as Returned.	Corrected as per Exhibit A, 4th line.
Per quarter.....	8,790.50	13,036.25
Per month.....	2,930.17	4,345.42
Per week.....	676.19	1,002.79
Per day.....	95.33	142.86

Table I. shows, by quarters of the year, for each of the years 1873-1878, the number and per cent. of children returned as having been born in this State. In 1878, the largest proportion is shown for the last quarter of the year. This has not occurred before in this State, except in 1871, the largest proportion in each of the other years 1868-1878, having been returned for the third quarter of the year,—ending with September.

TABLE I.—*Births by Quarters of the year, Exhibiting the Number and Per Cent. of Totals for each of the Years 1873 to 1878, inclusive, as Returned, and as Corrected for Omissions in the Enumeration.*

TOTALS, AND MONTHS WITH WHICH QUARTERS END.		1873.		1874.		1875.		1876.		1877.		1878.	
		Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.
As Returned.	Totals....	34,608	100.00	31,151	100.00	31,958	100.00	34,235	100.00	33,395	100.00	35,162	100.00
	March....	7,208	20.83	6,315	20.27	6,625	20.73	7,370	21.55	7,148	21.40	7,451	21.19
	June.....	8,104	23.42	7,608	24.42	7,962	24.91	8,339	24.36	7,995	23.94	8,539	24.28
	Sept.....	9,693	28.01	8,810	28.28	8,909	27.88	9,248	27.01	9,174	27.47	9,390	26.70
	Dec.....	9,533	27.54	8,373	26.88	8,402	26.29	9,165	26.77	9,007	26.97	9,750	27.73
	Unknown	70	.20	45	.14	60	.19	104	.30	71	.21	32	.09
	Average..	8,652	25.00	7,783	25.00	7,990	25.00	8,550	25.00	8,349	25.00	8,791	25.00
As Corrected for Omissions.	Totals....	45,088	100.00	55,841	100.00	46,553	100.00	45,172	100.00	50,203	100.00	52,145	100.00
	March....	10,314	22.88	13,707	24.55	11,074	23.79	10,840	24.00	12,446	24.79	12,742	24.44
	June.....	10,920	24.23	14,768	26.45	12,261	26.34	11,480	25.41	12,748	25.39	13,435	25.76
	Sept.....	12,201	27.06	15,019	26.90	12,494	26.84	11,858	26.25	13,258	26.41	13,402	25.70
	Dec.....	11,593	25.69	12,302	22.03	10,664	22.91	10,890	24.11	11,680	23.27	12,534	24.04
	Unknown	70	.16	45	.08	60	.13	104	.23	71	.14	32	.06
	Average..	11,272	25.00	13,960	25.00	11,638	25.00	11,293	25.00	12,551	25.00	13,036	25.00

\* The number in unknown quarter of year included.

BIRTHS DURING THE YEAR, BY MONTHS.

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TABLE II.—Births during each of the Years 1873—1878, inclusive, according to the Returns, exhibiting the Number and Per Cent. of Total, by Months, arranged in Order, those Months first which have the greatest Number of births.

ORDER.	1873.			1874.			1875.			1876.			1877.			1878.		
	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.
	Total..	34,968	100.00	Total..	31,151	100.00	Total..	31,953	100.00	Total..	34,235	100.00	Total..	33,395	100.00	Total..	35,162	100.00
1	Sept....	3,436	9.83	Aug. ..	3,077	9.88	Aug....	3,103	9.71	Dec. ....	3,205	9.36	Aug. ....	3,227	9.66	Dec....	3,423	9.73
2	Dec....	3,351	9.68	Sept. ..	2,972	9.54	Sept. ..	3,081	9.64	Aug. ....	3,124	9.13	Dec....	3,145	9.42	Aug. ....	3,295	9.37
3	Aug. ....	3,342	9.66	Dec....	2,921	9.38	Dec....	2,856	8.94	Sept....	3,110	9.08	Sept....	3,043	9.13	Oct. ....	3,266	9.29
4	Oct....	3,165	9.15	July....	2,761	8.86	Oct....	2,819	8.82	Oct....	3,039	8.88	Oct....	3,015	9.03	Sept....	3,260	9.27
5	Nov....	3,017	8.72	Oct....	2,725	8.75	Nov....	2,727	8.53	July....	3,014	8.80	July....	2,899	8.68	Nov....	3,061	8.71
6	July....	2,915	8.42	Nov....	2,725	8.75	July....	2,725	8.53	Nov....	2,921	8.53	Nov....	2,847	8.53	April..	2,937	8.35
7	Mar....	2,847	8.23	May....	2,586	8.30	May....	2,722	8.52	May....	2,870	8.33	Mar....	2,690	8.06	Mar....	2,839	8.07
8	May....	2,794	8.07	June....	2,558	8.21	April..	2,710	8.48	Mar....	2,744	8.01	May....	2,683	8.03	July....	2,833	8.06
9	April..	2,711	7.83	April..	2,464	7.91	June ..	2,530	7.91	June ..	2,739	8.00	June....	2,657	7.96	May....	2,803	7.98
10	June..	2,639	7.51	Mar....	2,462	7.90	Mar....	2,415	7.56	April..	2,730	7.97	April..	2,655	7.56	June ..	2,797	7.95
11	Feb....	2,249	6.60	Feb....	1,954	6.27	Feb....	2,121	6.64	Feb....	2,352	6.87	Feb....	2,246	6.73	Feb....	2,414	6.87
12	Jan....	2,111	6.10	Jan....	1,899	6.10	Jan....	2,089	6.53	Jan....	2,293	6.67	Jan....	2,212	6.62	Jan....	2,201	6.26
	Unk....	70	.20	Unk....	45	.14	Unk....	60	.19	Unk....	104	.30	Unk....	71	.21	Unk....	32	.09
	AV.... <sup>a</sup>	2,884	8.33	AV....	2,596	8.33	AV....	2,663	8.33	AV....	2,853	8.33	AV....	2,783	8.33	AV....	2,930	8.33

<sup>a</sup> Including unknown month.



## VITAL STATISTICS OF MICHIGAN, 1878.

**EXHIBIT 2.**—*Births during the Years 1875, 1876, 1877, and 1878, as Corrected for Omissions in the Enumeration, exhibiting the Number and Per Cent. of Total, by Months arranged in order by Number, Months having the greatest number first.*

ORDER.	1875.			1876.			1877.			1878.		
	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.
	Total....	46,568	100.00	Total....	45,172	100.00	Total....	50,203	100.00	Total....	52,145	100.00
1	Aug. ....	4,357	9.36	Aug. ....	4,007	8.87	Aug. ....	4,686	9.29	April....	4,759	9.13
2	Apr. ....	4,292	9.22	July ....	3,980	8.77	Mar. ....	4,553	9.08	March....	4,730	9.07
3	May ....	4,189	9.00	May ....	3,951	8.75	April....	4,385	8.69	Aug. ....	4,710	9.03
4	Sept. ....	4,188	9.00	Mar. ....	3,950	8.74	July ....	4,335	8.63	Sept. ....	4,504	8.64
5	July ....	3,949	8.48	Sept. ....	3,891	8.61	May ....	4,278	8.52	May ....	4,411	8.46
6	Mar. ....	3,934	8.45	April....	3,844	8.51	Sept. ....	4,257	8.48	Oct. ....	4,357	8.36
7	June ....	3,790	8.12	Dec. ....	3,708	8.21	June ....	4,105	8.18	June ....	4,265	8.18
8	Oct. ....	3,705	7.96	Oct. ....	3,707	8.21	Oct. ....	4,061	8.09	Dec. ....	4,240	8.13
9	Jan. ....	3,590	7.71	June ....	3,685	8.16	Jan. ....	3,965	7.90	July ....	4,188	8.03
10	Feb. ....	3,550	7.63	Nov. ....	3,475	7.69	Feb. ....	3,925	7.82	Feb. ....	4,131	7.92
11	Dec. ....	3,497	7.51	Feb. ....	3,460	7.66	Dec. ....	3,925	7.82	Nov. ....	3,937	7.55
12	Nov. ....	3,462	7.44	Jan. ....	3,430	7.59	Nov. ....	3,694	7.36	Jan. ....	3,881	7.44
	Unk. ....	60	.13	Unk. ....	104	.23	Unk. ....	71	.14	Unk. ....	32	.06
	Aver'ge a	3,879	8.33	Aver'ge a	3,764	8.33	Aver'ge a	4,184	8.33	Aver'ge a	4,345	8.33

a Including births in unknown month.

BIRTHS BY MONTHS, CORRECTED FOR OMISSIONS.

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EXHIBIT A.—Births in Michigan during the Year 1878, as Returned, as Corrected for Omissions in the Enumeration, the same Equalized for Increase of Population during the Year covered by the Returns, and the Births as thus Corrected and Equalized for the several Months, Equalized for Months of a Uniform length of 30.44 days; also, indicating some of the steps by which these results have been reached. (Still-births and Children of unknown Sex included.)

	TOTAL.	MONTHS, 1878.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Births as returned by Registration Officers.....	35,130	2,201	2,414	2,838	2,937	2,805	2,707	2,835	3,205	3,260	3,366	3,061	3,423
Per cent. of births to be added for correction for time elapsing before enumeration.....	76.33	71.56	66.79	62.02	57.25	52.48	47.71	42.94	38.17	33.40	28.63	23.86	19.09
Number of births to be added for above correction.....	16,983	1,680	1,717	1,894	1,822	1,606	1,468	1,353	1,415	1,244	1,091	876	817
Births, if enumerated in months of occurrence.....	52,113	3,881	4,131	4,730	4,759	4,411	4,255	4,188	4,710	4,504	4,357	3,937	4,240
Per cent. of births to be added to equalize them to population at close of year.....	4.21	3.86	3.51	3.16	2.81	2.46	2.11	1.76	1.41	1.06	.71	.35	.00
Births to be added to equalize them to population at close of year.....	1,191	163	159	166	150	124	105	88	64	46	28	15	00
Births, as corrected, equalized to population at close of year.....	53,304	4,044	4,290	4,896	4,909	4,535	4,370	4,276	4,793	4,568	4,403	3,965	4,255
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—56	+2.44	—56	+44	—56	—56	+44	—56	—56	+44	—56	+44	—56
Number of births added or subtracted to equalize them to months of uniform length.....	+71	—73	+374	—88	+72	—82	+64	—77	—87	+67	—80	+58	—77
Births, corrected and equalized, equalized to months of uniform length...	53,375	3,971	4,664	4,808	4,981	4,453	4,434	4,169	4,706	4,635	4,323	4,023	4,173

a. Excluding 32 in unknown month.

EXHIBIT B.—Births of Males in Michigan during the Year 1878, as Returned, as Corrected for Omissions in the Enumeration; the same Equalized for Increase of Population during the Year covered by the Returns, and the Births as thus Corrected and Equalized for the several Months, Equalized for Months of 30.44 Days each.

	TOTAL. <sup>a</sup>	MONTHS, 1878.											
		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Births of Males as returned by Registration officers.....	18,204	1,180	1,259	1,444	1,538	1,400	1,472	1,462	1,721	1,733	1,712	1,529	1,754
Per cent. of births to be added for correction for time elapsing before enumeration.....	77.16	72.34	72.34	67.52	62.70	57.88	53.06	48.21	43.42	38.60	33.78	28.96	24.14
Number of births to be added for above correction.....	8,086	91	911	974	964	810	781	705	747	609	578	443	423
Births of males, if enumerated in months of occurrence .....	26,300	1,271	2,170	2,418	2,502	2,210	2,253	2,167	2,468	2,402	2,290	1,972	2,177
Per cent. of births to be added to equalize them to population at close of year .....	4.21	3.86	3.86	3.51	3.16	2.81	2.46	2.11	1.76	1.41	1.06	.71	.85
Births to be added to equalize them to population at close of year.....	588	54	84	85	79	62	55	46	43	34	21	14	8
Births of males, as corrected, equalized to population at close of year.....	26,888	1,325	2,254	2,503	2,581	2,272	2,308	2,213	2,511	2,436	2,314	1,986	2,185
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	— .56	+ 2.44	— .56	+ .44	— .56	+ .44	— .56	— .56	— .56	+ .44	— .56	+ .44	— .56
Number of births added or subtracted to equalize them to months of uniform length.....	+ 57	— 21	+ 196	— 45	+ 38	— 41	+ 34	— 40	— 45	+ 36	— 42	+ 29	— 39
Births of males, corrected and equalized, equalized to months of uniform length.....	26,945	1,301	2,450	2,458	2,619	2,231	2,342	2,173	2,466	2,472	2,372	2,015	2,146

<sup>a</sup> Excluding 20 births in unknown month.

# BIRTHS OF FEMALES, CORRECTED, BY MONTHS.

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EXHIBIT C.—Births of Females in Michigan during the Year 1878, as Returned, as Corrected for Omissions in the Enumeration; the same Equalized for Increase of Population during the Year covered by the Returns, and the Births as thus Corrected and Equalized for the several Months, Equalized for Months of 30.44 Days each.

MONTHS, 1878.													
TOTAL.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Births of Females as returned by Registration Officers.....	1,012	1,150	1,390	1,391	1,400	1,323	1,370	1,570	1,522	1,546	1,527	1,659	
Per cent. of Births to be added for correction for time elapsing before enumeration .....	76.67	71.88	67.09	62.30	57.51	52.72	47.93	43.14	38.35	33.56	28.77	23.98	
Number of births to be added for above correction .....	8,179	776	827	933	805	697	657	677	584	519	439	388	
Births of Females, if enumerated in months of occurrence.....	25,039	1,778	2,323	2,258	2,205	2,020	2,027	2,247	2,106	2,065	1,968	2,057	
Per cent. of births to be added to equalize them to population at close of year.....	4.21	3.86	3.51	3.16	2.81	2.46	2.11	1.76	1.41	1.06	.71	.35	
Births to be added to equalize them to population at close of year.....	573	75	76	82	71	62	50	43	40	30	22	14	7
Births of Females, as corrected, equalized to population at close of year.....	25,611	1,863	2,405	2,329	2,267	2,070	2,070	2,287	2,136	2,087	1,980	2,064	
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—56	+2.44	—56	+44	—56	+44	—56	—56	+44	—56	+44	—56	
Number of births added or subtracted to equalize them to months of uniform length.....	+32	—34	+179	—43	+34	—41	+30	—37	+31	—38	+20	—37	
Births of Females, corrected and equalized, equalized to months of uniform length.....	25,643	1,829	2,232	2,362	2,363	2,226	2,100	2,033	2,246	2,167	2,049	2,027	

\* Excluding 11 births in unknown month.



EXHIBIT D.—Births of Males and of Females in Michigan during the Year 1878, Corrected for Omissions in the Enumeration, and, as thus Corrected, Equalized to Months of Uniform length; also, the total Births of both Sexes as thus Corrected and Equalized. (Births of Children of unknown Sex not included.)

	TOTAL <sup>a</sup>	MONTHS, 1878.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Births of Males, if enumerated in months of occurrence.....	26,300	1,371	2,170	2,418	2,502	2,210	2,253	2,167	2,468	2,402	2,290	1,972	2,177
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	.....	-.56	+ 2.44	-.56	+ .44	-.56	+ .44	-.56	-.56	+ .44	-.56	+ .44	-.56
Number of births added or subtracted to equalize them to months of uniform length.....	+ 52	-23	+ 180	-44	+ 37	-40	+ 33	-39	-45	+ 35	-41	+ 29	-39
Births of Males, corrected and equalized to months of uniform length.....	26,352	1,248	2,350	2,374	2,530	2,170	2,286	2,128	2,423	2,437	2,249	2,001	2,138
Births of Females, if enumerated in months of occurrence.....	25,039	1,788	1,977	2,323	2,358	2,205	2,020	2,027	2,217	2,106	2,065	1,966	2,057
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	.....	-.56	+ 2.44	-.56	+ .44	-.56	+ .44	-.56	-.56	+ .44	-.56	+ .44	-.56
Number of births added or subtracted to equalize them to months of uniform length.....	+ 49	-32	+ 172	-42	+ 33	-40	+ 30	-37	-41	+ 31	-37	+ 29	-37
Births of Females, corrected and equalized to months of uniform length.....	25,068	1,756	2,149	2,241	2,291	2,165	2,050	1,990	2,206	2,157	2,028	1,955	2,020
Births of Males, corrected and equalized to months of uniform length.....	26,352	1,248	2,350	2,374	2,530	2,170	2,286	2,128	2,423	2,437	2,249	2,001	2,138
Births of Males and of Females, corrected and equalized to months of uniform length.....	51,420	3,004	4,508	4,655	4,830	4,335	4,336	4,118	4,629	4,574	4,277	3,900	4,168
Males to 100 Females, Births corrected and equalized to months of uniform length.....	105	71	110	104	111	100	112	107	110	114	111	100	106

<sup>a</sup> Excluding 30 births of males, and 11 births of females in unknown month.

# BIRTHS BY MONTHS, CORRECTED FOR OMISSIONS.

9

EXHIBIT 3.—Births in Michigan during the Year 1878, Corrected for Omissions in the Enumeration and Equalized for Months of a uniform length of 30.44 Days. (Still-births and Children of unknown Sex included.)

	TOTAL.	MONTHS, 1878.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Births, if enumerated in months of occurrence.....	52,113	3,361	4,131	4,730	4,759	4,411	4,265	4,188	4,710	4,504	4,357	3,937	4,940
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of births added or subtracted to equalize them to months of uniform length.....	+ 65	—56	+ 2.44	—56	+ .44	—56	+ .44	—56	—56	+ .44	—56	+ .44	—56
Births, corrected and equalized to months of uniform length.....	52,178	—70	+ 360	—85	+ 70	—80	+ 63	—76	—86	+ 66	—70	+ 58	—77
		3,311	4,491	4,645	4,929	4,331	4,328	4,112	4,625	4,570	4,278	3,906	4,163

\* Excluding 83 births in unknown month.

The data in Table III. relates to the subject of the influence of the marriage-rate upon the conception-rate. In seven out of twelve months, more than the average number of conceptions appear for months in which more than the average number of marriages were solemnized, and *vice versa*. When the births are corrected for omissions in the enumeration, as in Exhibit E, the above proposition is true of only six out of the twelve months.

TABLE III.—*Exhibiting the Relation between the Births Returned as having occurred in Michigan during the Year 1878, and the Marriages solemnized in the Months of the Years 1877 and 1878, in which the Conceptions probably occurred. (Births and Marriages in unknown month excluded.)*

BIRTHS RETURNED AS HAVING OCCURRED IN 1878, EQUALIZED TO MONTHS OF 30.44 DAYS EACH, IN ORDER BY NUMBER, GREATEST FIRST.					Number of Marriages from April, 1877, to March, 1878, equalized to Months of 30.44 days each. <sup>b</sup>
BIRTHS. <sup>a</sup>		CONCEPTIONS.			
Year and Months.	Number.	Months.	Year.		
Year .....	35,144	.....	.....	11,967	
More than the Av. No. of Births.	December.....	3,361	March..... <sup>c</sup>	1878	972
	September.....	3,307	December.....	1877	1,235
	August.....	3,236	November.....	1877	1,207
	October.....	3,207	January.....	1878	1,036
	November.....	3,105	February..... <sup>c</sup>	1878	931
	April.....	2,990	July..... <sup>c</sup>	1877	908
Average .....	2,929	.....	.....	989	
Less than the Av. No. of Births.	June.....	2,838	September..... <sup>c</sup>	1877	1,103
	March.....	2,785	June.....	1877	740
	July.....	2,784	October..... <sup>c</sup>	1877	1,201
	May.....	2,755	August.....	1877	753
	February.....	2,624	May.....	1877	834
	January.....	2,162	April.....	1877	947

<sup>a</sup> Excluding 32 births in unknown month.

<sup>b</sup> Corrected for additional returns, up to December 20, 1879.

<sup>c</sup> Exceptions to the proposition that *more* than the average number of conceptions appear for months in which *more* than the average number of marriages were solemnized, and *vice versa*.

**EXHIBIT E.**—*The Relation between the Births in Michigan during the Year 1878, Corrected for Omissions in the Enumeration, and the Marriages solemnized in the Months of the Years 1877 and 1878, in which the Conceptions probably occurred. (Births and Marriages in unknown Month excluded.)*

BIRTHS IN 1878, CORRECTED AS IF ENUMERATED IN MONTHS OF OCCURRENCE, AND EQUALIZED TO MONTHS OF UNIFORM LENGTH, IN ORDER BY NUMBER, GREATEST FIRST.					No. of Marriages from April, 1877, to March, 1878, equalized to Months of 30.44 Days each. <sup>b</sup>
BIRTHS. <sup>a</sup>			CONCEPTIONS.		
Year and Months.		Number.	Months.	Year.	
Year .....		52,173	.....	.....	11,867
More than an Av. No. of Births.	April.....	4,829	July .....	1877	908
	March .....	4,645	June .....	1877	740
	August.....	4,625	November.....	1877	1,207
	September.....	4,570	December.....	1877	1,235
	February.....	4,491	May .....	1877	834
Average .....		4,348	.....	.....	989
Less than an Av. No. of Births.	May.....	4,331	August.....	1877	753
	June.....	4,328	September.....	1877	1,103
	October .....	4,278	January.....	1878	1,036
	December.....	4,163	March.....	1878	972
	July .....	4,112	October.....	1877	1,201
	November .....	3,995	February.....	1878	931
January.....		3,811	April.....	1877	947

<sup>a</sup> Unknown month excluded.

<sup>b</sup> Corrected for additional returns, up to December 20, 1878.

<sup>c</sup> Exceptions to the proposition that *more* than the average number of conceptions appear for months in which *more* than the average number of marriages were solemnized, and *vice versa*.



TABLE IV.—*Exhibiting, by Counties and by Sex, the Number of Children Returned as having been born in Michigan during the Year, and in each Month of the Year Ending December 31, 1878. (Still-births included.)*

STATE AND COUNTIES.		SEX.	YEAR, 1878.	MONTHS, 1878.											
				January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
State.....	Total.....	35,162	2201	2414	2836	2937	2805	2797	2835	3295	3260	3236	3061	3423	32
	Males.....	18,224	1180	1259	1444	1538	1400	1472	1462	1721	1733	1712	1529	1754	20
	Females.....	16,871	1012	1150	1390	1391	1400	1323	1370	1570	1522	1546	1527	1659	11
	Unknown.....	67	9	5	2	8	5	2	3	4	5	8	5	10	1
	Excess of Males	1,353	168	109	54	147	---	149	92	151	211	166	2	95	9
Alcona.....	Total.....	34	5	2	6	3	5	3	1	1	3	3	1	1	---
	Males.....	15	2	2	1	2	3	1	---	1	2	1	---	---	---
	Females.....	19	3	---	5	1	2	2	1	---	1	2	1	1	---
Allegan.....	Total.....	813	52	56	58	67	78	70	56	92	70	78	76	59	1
	Males.....	409	29	28	28	27	45	32	35	38	36	39	39	33	---
	Females.....	403	23	28	30	40	33	38	21	54	33	39	37	26	1
	Unknown.....	1	---	---	---	---	---	---	---	---	1	---	---	---	---
Alpena.....	Total.....	194	31	15	11	18	13	13	15	15	14	16	17	16	---
	Males.....	108	19	7	5	11	7	8	11	7	9	9	7	8	---
	Females.....	85	11	8	6	7	6	5	4	8	5	7	10	8	---
	Unknown.....	1	1	---	---	---	---	---	---	---	---	---	---	---	---
Antrim.....	Total.....	90	3	3	7	4	10	8	7	11	10	8	14	5	---
	Males.....	45	3	1	2	2	6	3	5	3	5	6	8	1	---
	Females.....	45	---	2	5	2	4	5	2	8	5	2	6	4	---
Baraga.....	Total.....	54	5	1	8	6	3	5	4	7	3	2	7	3	---
	Males.....	31	1	---	6	2	2	4	2	3	2	1	5	3	---
	Females.....	23	4	1	2	4	1	1	2	4	1	1	2	---	---
Barry.....	Total.....	482	29	27	37	37	50	39	40	44	43	48	43	39	1
	Males.....	253	17	16	14	16	26	24	26	21	19	25	27	21	1
	Females.....	229	12	11	23	21	24	15	14	23	29	23	16	18	---
Bay.....	Total.....	920	64	61	68	79	65	69	66	81	107	74	82	103	1
	Males.....	451	37	31	35	42	53	33	27	43	51	36	34	49	---
	Females.....	469	27	30	33	37	32	36	39	38	56	38	48	54	1
Benzie.....	Total.....	84	4	6	10	4	12	4	14	5	7	7	5	6	---
	Males.....	43	2	6	2	2	5	1	6	4	6	2	3	4	---
	Females.....	41	2	---	8	2	7	3	8	1	1	5	2	2	---
Berrien.....	Total.....	771	54	63	48	78	61	54	50	67	60	89	62	85	---
	Males.....	397	26	32	28	36	28	24	26	37	32	48	37	43	---
	Females.....	372	27	31	20	42	33	30	24	30	28	40	25	42	---
	Unknown.....	2	1	---	---	---	---	---	---	---	---	1	---	---	---

\* Except of counties and townships not represented by returns of births in 1878.

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Branch	Total.....	482	25	33	40	48	31	32	34	62	49	46	32	50	---
	Males.....	244	14	20	20	19	19	18	15	36	23	21	17	22	---
	Females.....	237	11	13	20	28	12	14	19	26	26	25	15	28	---
	Unknown.....	1	---	---	---	1	---	---	---	---	---	---	---	---	---
Calhoun	Total.....	594	27	45	34	41	42	47	46	62	67	63	63	56	1
	Males.....	299	16	21	14	20	19	25	23	34	37	31	29	30	---
	Females.....	293	11	24	20	21	23	22	23	28	30	31	33	26	1
	Unknown.....	2	---	---	---	---	---	---	---	---	---	1	1	---	---
Cass	Total.....	447	19	24	46	39	36	45	46	39	44	34	42	33	---
	Males.....	224	8	14	22	22	15	22	24	24	23	19	24	17	---
	Females.....	213	11	10	24	17	21	23	22	15	21	15	18	16	---
Charlevoix	Total.....	118	4	7	8	8	12	9	12	16	11	8	10	13	---
	Males.....	63	2	4	5	3	8	7	7	6	7	3	6	5	---
	Females.....	55	2	3	3	5	4	2	5	10	4	5	4	8	---
Cheboygan	Total.....	120	2	6	12	8	10	8	16	10	12	14	11	11	---
	Males.....	49	2	1	7	3	5	2	5	3	6	4	3	8	---
	Females.....	70	---	5	5	5	5	6	11	7	6	0	8	3	---
	Unknown.....	1	---	---	---	---	---	---	---	---	---	1	---	---	---
Chippewa	Total.....	99	5	8	9	6	4	8	7	11	10	12	14	5	---
	Males.....	47	2	4	3	3	---	2	2	7	7	6	9	2	---
	Females.....	52	3	4	6	3	4	6	5	4	3	6	5	3	---
Clare	Total.....	80	6	2	8	7	9	11	8	6	4	0	4	9	---
	Males.....	36	2	2	5	5	1	4	7	4	1	3	1	1	---
	Females.....	44	4	---	3	2	8	7	1	2	3	3	3	8	---
Clinton	Total.....	615	35	30	48	43	49	64	60	60	58	64	42	62	---
	Males.....	315	18	9	23	24	27	36	23	29	31	34	25	33	---
	Females.....	300	17	21	25	19	22	28	35	31	27	30	16	29	---
Crawford	Total.....	13	2	2	---	---	---	---	---	1	1	2	3	2	---
	Males.....	6	2	1	---	---	---	---	---	---	1	1	---	1	---
	Females.....	7	---	1	---	---	---	---	---	1	---	1	3	1	---
Delta	Total.....	161	18	12	8	14	20	15	13	9	13	16	13	10	---
	Males.....	82	10	6	4	8	8	10	7	4	7	8	7	3	---
	Females.....	79	8	6	4	6	12	5	6	5	6	8	6	7	---
Eaton	Total.....	605	35	33	47	59	33	43	59	67	60	53	62	52	2
	Males.....	295	14	12	23	29	18	23	22	26	37	32	24	23	2
	Females.....	309	21	21	24	30	15	20	27	41	23	20	38	29	---
	Unknown.....	1	---	---	---	---	---	---	---	---	---	1	---	---	---

\* No returns from townships of Detour and Sugar Island.

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Emmet	Total.....	104	8	1	7	10	9	10	8	12	13	10	10	6	---
	Males.....	50	4	1	1	6	4	4	6	6	5	3	6	4	---
	Females.....	53	4	---	6	4	4	6	2	6	8	7	4	2	---
	Unknown.....	1	---	---	---	---	1	---	---	---	---	---	---	---	---
Genesee	Total.....	768	47	44	50	60	64	64	61	85	70	81	69	71	2
	Males.....	377	20	21	27	32	36	33	25	41	36	38	29	38	1
	Females.....	391	27	23	23	28	28	31	36	44	34	43	40	33	1
Gladwin	Total.....	18	---	---	---	1	3	2	3	2	2	---	1	4	---
	Males.....	10	---	---	---	1	1	1	3	1	---	---	---	3	---
	Females.....	8	---	---	---	---	2	1	---	1	2	---	1	1	---
Grand Traverse	Total.....	148	14	5	15	14	11	9	9	18	10	16	18	9	---
	Males.....	84	7	4	8	9	7	6	4	12	8	7	8	4	---
	Females.....	64	7	1	7	5	4	3	5	6	2	9	10	5	---
Gratiot	Total.....	416	20	29	41	40	31	41	36	41	30	40	31	36	---
	Males.....	223	10	19	22	20	18	18	20	20	14	14	21	27	---
	Females.....	193	10	10	19	20	13	23	16	21	16	26	10	9	---
Hillsdale	Total.....	510	36	30	45	50	34	46	41	50	47	48	39	43	1
	Males.....	264	20	16	22	24	13	25	19	33	27	25	21	18	1
	Females.....	246	16	14	23	26	21	21	22	17	20	23	18	25	---
Houghton	Total.....	914	51	63	94	69	72	86	66	89	80	84	72	88	---
	Males.....	469	34	33	45	31	26	50	31	48	47	44	31	49	---
	Females.....	442	17	30	49	37	46	36	35	41	33	40	40	38	---
	Unknown.....	3	---	---	---	1	---	---	---	---	---	---	1	1	---
Huron	Total.....	570	20	37	46	53	45	38	38	69	58	59	53	53	1
	Males.....	298	8	24	25	28	23	18	19	29	32	32	29	30	1
	Females.....	272	12	13	21	25	22	20	19	40	26	27	24	23	---
Ingham	Total.....	593	26	41	41	46	49	43	51	60	48	67	59	62	---
	Males.....	312	16	19	20	28	29	25	21	36	29	28	27	34	---
	Females.....	280	10	22	21	18	20	18	30	24	19	39	31	28	---
	Unknown.....	1	---	---	---	---	---	---	---	---	---	---	1	---	---
Ionia	Total.....	621	37	39	44	59	44	50	63	51	57	69	54	54	---
	Males.....	316	22	20	22	27	24	25	27	30	26	38	24	31	---
	Females.....	304	15	19	22	31	20	25	36	21	31	31	30	23	---
	Unknown.....	1	---	---	---	1	---	---	---	---	---	---	---	---	---
Isco	Total.....	68	6	3	11	5	8	5	6	7	4	6	1	5	1
	Males.....	39	2	1	5	2	6	4	4	5	2	3	1	3	1
	Females.....	29	4	2	6	3	2	1	2	2	2	3	---	2	---

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Isabella.....	Total .....	229	16	8	12	30	25	21	21	19	22	14	13	25	3
	Males.....	116	9	3	6	15	10	11	16	8	11	8	4	12	3
	Females.....	113	7	5	6	15	15	10	5	11	11	6	9	13	.....
Iale Royal.....	b														
Jackson.....	Total .....	779	32	39	54	48	74	65	78	79	73	87	78	72	.....
	Males.....	411	14	24	25	24	33	29	45	40	41	48	46	42	.....
	Females.....	368	18	15	29	24	41	36	33	39	32	39	32	30	.....
Kalamazoo.....	Total.....	503	31	51	44	44	44	45	83	60	51	59	56	55	.....
	Males.....	325	21	26	20	30	22	29	21	40	30	35	24	27	.....
	Females.....	267	10	25	24	14	22	16	32	20	21	24	32	27	.....
	Unknown.....	1												1	.....
Kalkaska.....	Total.....	66	4	3	4	8	5	2	3	9	10	10	3	5	.....
	Males.....	29	4		2	4	1		3	1	4	6	2	2	.....
	Females.....	37		3	2	4	4	2		8	6	4	1	3	.....
Kent.....	Total.....	1,631	126	109	127	128	114	110	119	169	144	143	157	186	1
	Males.....	829	54	56	68	60	50	40	62	84	76	85	81	104	.....
	Females.....	798	72	51	59	68	64	61	56	85	68	58	76	81	1
	Unknown.....	4		2					1					1	.....
Keweenaw.....	Total.....	269	22	25	25	25	23	33	21	18	18	21	19	16	.....
	Males.....	141	12	11	19	10	11	21	11	8	11	7	13	7	.....
	Females.....	126	10	14	9	15	11	11	10	10	7	14	6	9	.....
	Unknown.....	2					1	1							.....
Lake.....	Total.....	69	2	3	9	6	8	7	8	6	7	6	3	4	.....
	Males.....	33	1	2	4	4	3	4	5	3	2	3	1	1	.....
	Females.....	36	1	1	5	2	5	3	3	3	5	3	2	3	.....
Lapeer.....	Total.....	540	30	33	48	38	50	45	40	44	57	58	44	52	1
	Males.....	279	18	16	24	15	23	21	19	23	38	32	22	27	1
	Females.....	260	12	17	23	23	27	24	21	21	19	26	22	25	.....
	Unknown.....	1			1										.....
Leelanaw.....	Total.....	162	12	15	17	16	14	12	12	16	9	12	13	14	.....
	Males.....	90	5	6	11	10	8	8	6	12	3	7	6	8	.....
	Females.....	72	7	9	6	6	6	4	6	4	6	5	7	6	.....

a No returns from township of Rolland.

b No returns for 1878 from the county clerk to the State department.



TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	Sex.	YEAR, 1878.	MONTHS, 1878.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Lenawee	Total	752	51	60	53	70	60	65	61	84	61	70	54	61	2
	Males	404	28	33	27	35	38	33	36	56	27	36	25	28	2
	Females	344	22	26	26	35	21	32	25	27	34	34	29	33	—
	Unknown	4	1	1	—	—	1	—	—	1	—	—	—	—	—
Livingston	Total	449	30	25	33	36	40	46	32	44	35	47	36	45	—
	Males	213	16	10	16	18	20	22	18	25	16	20	16	16	—
	Females	236	14	15	17	18	20	24	14	19	19	27	20	29	—
Mackinac	Total	37	—	2	1	1	3	6	2	7	—	3	6	5	1
	Males	19	—	1	1	—	2	4	2	2	—	2	3	2	—
	Females	18	—	1	—	1	1	2	—	5	—	1	3	3	1
Macomb	Total	693	36	40	61	62	50	55	59	72	61	66	61	70	—
	Males	379	16	17	27	37	24	35	43	42	27	40	34	37	—
	Females	313	20	23	34	25	26	20	16	29	34	26	27	33	—
	Unknown	1	—	—	—	—	—	—	—	1	—	—	—	—	—
Manistee	Total	355	18	28	33	35	38	30	30	22	37	33	18	32	1
	Males	190	7	11	14	20	20	20	16	12	18	22	12	17	1
	Females	165	11	17	19	15	18	10	14	10	19	11	6	15	—
Manitou	Total	30	1	1	3	2	1	4	7	4	2	3	2	—	—
	Males	16	1	1	1	—	1	3	4	2	—	2	1	—	—
	Females	14	—	—	2	2	—	1	3	2	2	1	1	—	—
Marquette	Total	721	41	61	62	55	64	56	49	59	76	47	64	87	—
	Males	379	24	32	31	32	29	32	25	33	41	25	29	46	—
	Females	342	17	29	31	23	35	24	24	26	35	22	35	41	—
Mason	Total	183	7	16	16	25	21	18	16	9	13	12	12	18	—
	Males	94	2	8	5	17	8	8	8	5	7	3	10	13	—
	Females	89	5	8	11	8	13	10	8	4	6	9	2	5	—
Mecosta	Total	265	22	13	24	23	25	28	20	22	21	29	22	15	1
	Males	126	14	8	14	8	11	10	11	13	8	14	7	7	1
	Females	137	8	5	10	15	13	18	9	9	13	15	14	8	—
	Unknown	2	—	—	—	—	1	—	—	—	—	—	1	—	—
Menominee	Total	45	4	4	2	6	2	6	2	2	5	2	5	5	—
	Males	23	2	1	—	5	—	4	1	1	3	2	2	2	—
	Females	22	2	3	2	1	2	2	1	1	2	—	3	3	—
Midland	Total	169	8	15	18	10	19	18	15	18	14	11	13	10	—
	Males	83	4	10	9	7	10	10	3	8	7	5	6	4	—
	Females	86	4	5	9	3	9	8	12	10	7	6	7	6	—

• No returns from townships of Hendricks, Holmes, Newton, and St. Ignace.

• No returns from townships of Cedarville, Breitung, and Spaulding.

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Missaukee.....	Total.....	39	2	3	5	4	4	3	3	4	2	3	3	1	3
	Males.....	17	1	1	3	1	1	3	1	2	1	1	2	.....	.....
	Females.....	21	1	2	2	3	3	.....	2	2	1	2	1	1	1
Monroe.....	Total.....	359	63	44	78	78	54	55	68	91	102	72	65	89	.....
	Males.....	445	38	20	34	50	31	19	33	52	62	36	26	44	.....
	Females.....	412	25	24	44	27	23	35	35	39	40	36	39	45	.....
	Unknown.....	2	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....
Montcalm.....	Total.....	605	33	34	42	50	60	50	46	64	75	45	48	58	.....
	Males.....	333	18	19	23	29	33	29	25	36	44	28	19	30	.....
	Females.....	271	15	15	19	21	27	21	21	27	31	17	29	23	.....
	Unknown.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Muskegon.....	Total.....	533	34	41	42	46	44	40	47	34	53	44	45	59	4
	Males.....	299	21	27	19	23	25	27	23	15	26	27	23	36	2
	Females.....	234	13	14	23	18	19	13	24	19	27	17	22	23	2
Newaygo.....	Total.....	243	14	13	20	27	16	25	21	13	22	20	23	29	1
	Males.....	135	7	8	15	17	5	13	8	7	13	13	8	21	.....
	Females.....	105	7	4	5	10	11	12	13	5	9	7	15	8	.....
	Unknown.....	3	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Oakland.....	Total.....	641	44	32	51	58	48	44	50	57	60	69	57	68	3
	Males.....	321	28	16	22	25	25	17	21	30	38	39	26	32	2
	Females.....	316	15	16	29	31	23	27	29	27	22	29	31	36	1
	Unknown.....	4	1	.....	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....
Oceana.....	Total.....	275	11	16	14	19	28	24	26	25	24	20	32	36	.....
	Males.....	134	5	10	4	11	16	10	13	9	11	11	13	21	.....
	Females.....	141	6	6	10	8	12	14	13	16	13	9	19	15	.....
Ogemaw.....	Total.....	5	3	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Males.....	3	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ontonagon.....	Total.....	69	5	8	2	9	7	3	4	10	4	3	7	7	.....
	Males.....	34	2	2	1	6	4	2	.....	6	3	2	2	4	.....
	Females.....	35	3	6	1	3	3	1	4	4	1	1	5	3	.....
Osceola.....	Total.....	257	15	20	17	22	16	22	29	29	25	20	21	21	.....
	Males.....	145	7	13	10	15	7	11	16	17	14	9	12	14	.....
	Females.....	111	8	7	7	7	9	11	13	12	10	11	9	7	.....
	Unknown.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....

\* No returns from township of Montague.

3—1878.

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Otsego.....	Total.....	23	5	---	1	4	2	2	2	3	2	1	---	1	---
	Males.....	14	3	---	1	3	2	2	---	---	2	---	---	1	---
	Females.....	9	2	---	1	---	---	---	2	3	---	1	---	---	---
Ottawa.....	Total.....	859	53	71	68	79	74	69	72	82	65	75	63	87	1
	Males.....	423	32	28	36	37	29	38	39	36	31	44	29	43	1
	Females.....	434	21	43	32	41	45	31	32	46	34	31	34	44	---
	Unknown.....	2	---	---	1	---	---	1	---	---	---	---	---	---	---
Presque Isle.....	Total.....	92	6	5	9	9	4	8	7	9	5	13	7	10	---
	Males.....	45	5	2	3	5	2	4	4	5	3	2	3	7	---
	Females.....	47	1	3	6	4	2	4	3	4	2	11	4	3	---
Roscommon.....	Total.....	5	---	---	---	1	1	1	1	---	---	1	---	---	---
	Males.....	4	---	---	---	1	1	1	---	---	---	1	---	---	---
	Females.....	1	---	---	---	---	---	---	1	---	---	---	---	---	---
Saginaw.....	Total.....	1,391	85	98	121	113	115	116	112	129	115	132	117	138	---
	Males.....	715	52	47	69	57	64	56	52	76	61	68	46	67	---
	Females.....	676	33	51	52	56	51	60	60	53	54	64	71	71	---
Sanilac.....	Total.....	623	24	36	53	57	52	54	53	47	68	78	42	59	---
	Males.....	339	13	22	33	32	25	37	28	20	34	38	23	34	---
	Females.....	283	11	14	20	25	27	17	25	27	34	39	19	25	---
	Unknown.....	1	---	---	---	---	---	---	---	---	---	1	---	---	---
Schoolcraft..... <sup>a</sup>	Total.....	14	1	---	2	1	2	1	2	3	1	---	1	---	---
	Males.....	6	---	---	1	1	1	---	1	1	---	1	---	---	---
	Females.....	8	1	---	2	---	1	---	2	2	---	---	---	---	---
Shiawassee..... <sup>b</sup>	Total.....	510	29	35	39	39	41	44	42	49	50	42	40	60	---
	Males.....	256	18	18	20	19	21	24	22	23	24	22	20	25	---
	Females.....	254	11	17	19	20	20	20	20	26	26	20	20	35	---
St. Clair.....	Total.....	977	46	85	80	84	70	59	68	95	102	97	90	100	1
	Males.....	522	24	49	46	52	32	27	30	46	56	51	53	56	---
	Females.....	455	22	36	34	32	38	32	38	49	46	46	37	44	1
St. Joseph.....	Total.....	489	27	31	36	34	41	37	32	52	47	50	47	55	---
	Males.....	246	13	19	18	18	21	22	17	24	24	20	26	24	---
	Females.....	243	14	12	18	16	20	15	15	28	23	30	21	31	---
Tuscola.....	Total.....	515	23	31	40	52	43	56	49	48	33	48	44	48	---
	Males.....	262	14	18	20	30	22	30	24	22	21	21	20	20	---
	Females.....	253	9	13	20	22	21	26	25	26	12	27	24	28	---

<sup>a</sup> No returns from township of Munising.<sup>b</sup> No returns from township of Burns.

BIRTHS BY COUNTIES, BY MONTHS, BY SEX.

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TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	Sex.	YEAR, 1878.	MONTHS, 1878.												Unknown.
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Van Buren.....	Total.....	616	34	42	49	46	54	44	53	50	58	61	59	66	...
	Males.....	317	11	19	32	26	22	21	26	27	31	33	40	29	...
	Females.....	298	23	23	17	20	32	23	27	23	27	27	19	37	...
	Unknown.....	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Washtenaw.....	Total.....	589	33	31	44	39	50	56	38	59	63	48	50	78	...
	Males.....	306	18	13	21	21	25	31	21	34	29	31	27	35	...
	Females.....	281	15	18	23	18	25	25	17	24	34	17	23	42	...
	Unknown.....	2	...	...	...	...	...	...	...	1	...	...	...	1	...
Wayne.....	Total.....	5,192	413	443	458	403	362	380	411	411	485	446	498	500	...
	Males.....	2,765	219	251	242	207	190	203	231	212	261	243	254	252	...
	Females.....	2,410	191	191	215	197	171	157	180	199	221	203	243	242	...
	Unknown.....	17	3	1	...	1	1	...	...	...	3	...	1	6	...
Wexford.....	Total.....	190	15	15	9	19	24	11	15	18	13	23	12	25	...
	Males.....	95	9	5	...	12	10	3	8	12	5	10	8	9	...
	Females.....	101	4	10	...	7	14	8	7	6	8	12	4	16	...
	Unknown.....	3	2	...	...	...	...	...	...	...	...	1	...	...	...



TABLE V.—*Exhibiting, by Color and by Sex, the Number of Children returned as having been born in Michigan during the Year 1878, and the Per Cent. of Children of each Sex to the Total Number of both Sexes. (Still-births included.)*

COLOR OR RACE.	SEX.	Children Born in 1878.	Per Cent. of births of each Color to total of all Colors, by Sex.	Per Cent. of each Sex to Children of both Sexes.
All Colors.....	Total.....	35,162	100.00	-----
	Males.....	18,224	100.00	51.93
	Females.....	16,871	100.00	48.07
	Unknown.....	67	100.00	-----
White.....	Total.....	34,716	98.73	-----
	Males.....	18,021	98.89	51.99
	Females.....	16,643	98.65	48.01
	Unknown.....	52	77.61	-----
Black.....	Total.....	125	.36	-----
	Males.....	58	.32	46.40
	Females.....	67	.40	53.60
Mulatto.....	Total.....	81	.23	-----
	Males.....	36	.20	44.44
	Females.....	45	.27	55.56
Indian.....	Total.....	160	.46	-----
	Males.....	78	.43	49.06
	Females.....	81	.48	50.94
	Unknown.....	1	1.49	-----
Unknown color.....	Total.....	80	.23	-----
	Males.....	31	.17	46.97
	Females.....	35	.21	53.03
	Unknown.....	14	20.90	-----
Black and Mulatto.....	Total.....	205	.59	-----
	Males.....	94	.52	45.63
	Females.....	112	.66	54.37

Table VI. shows, by color and by sex, the number of inhabitants of Michigan in 1874 represented by returns of births for 1878, and the number of children born in 1878; also the males to 100 females born in 1878, and by sex, the birth-rate in 1878 based upon the births returned for 1878 and the population in 1874. There are three counties for which no statement of the birth-rate is made; and of the remaining 74 counties, in 18 counties there was a greater than average birth-rate, and more than average proportion of males; in 26 counties there was a greater than average birth-rate, and less than average proportion of males; in 18 counties there was a less than average birth-rate, and less than average proportion of males; and in 12 counties there was a less than average birth-rate, and more than average proportion of males.

TABLE VI.—*Exhibiting for the State and Counties of Michigan, by Sex, the Number of Inhabitants in 1874, the Per Cent. of Births Returned for 1878 to Population in 1874, the Number of Males to 100 Females born during the Year 1878, and by Sex and by Color the Number of Children returned as having been born during the Year ending December 31, 1878. (Still-births included.)*

STATE AND COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
State..... <sup>a</sup>	108	Total.....	.....	1,328,485	2.63	35,162	54,716	125	81	160	80
		Males.....	51.93	694,143	2.63	18,224	18,021	<sup>b</sup> 58	36	<sup>c</sup> 78	31
		Females..	48.07	634,337	2.66	16,871	16,643	<sup>d</sup> 67	45	<sup>e</sup> 81	35
		Unknown.....	.....	.....	.....	67	52	.....	.....	1	14
Alcona..... <sup>f</sup>	79	Total.....	.....	1,214	2.80	34	34	.....	.....	.....	.....
		Males.....	44.12	688	2.18	15	15	.....	.....	.....	.....
		Females..	55.88	526	3.61	19	19	.....	.....	.....	.....
Allegan.....	101	Total.....	.....	32,381	2.51	813	797	2	11	3	.....
		Males.....	50.37	16,976	2.41	409	402	1	5	1	.....
		Females..	49.63	15,405	2.62	403	394	1	6	2	.....
		Unknown.....	.....	.....	.....	1	1	.....	.....	.....	.....
Alpena.....	127	Total.....	.....	4,807	4.04	194	194	.....	.....	.....	.....
		Males.....	55.96	2,808	3.85	108	108	.....	.....	.....	.....
		Females..	44.04	1,999	4.25	85	85	.....	.....	.....	.....
		Unknown.....	.....	.....	.....	1	1	.....	.....	.....	.....
Antrim.....	100	Total.....	.....	3,002	3.00	90	86	.....	.....	3	1
		Males.....	50.00	1,654	2.72	45	42	.....	.....	2	1
		Females..	50.00	1,348	3.34	45	44	.....	.....	1	.....
Baraga..... <sup>g</sup>	135	Total.....	.....	.....	.....	54	41	.....	.....	13	.....
		Males.....	57.41	<sup>h</sup> .....	.....	31	23	.....	.....	<sup>i</sup> 8	.....
		Females..	42.59	.....	.....	23	18	.....	.....	<sup>j</sup> 5	.....
Barry.....	110	Total.....	.....	22,051	2.19	482	482	.....	.....	.....	.....
		Males.....	52.49	11,588	2.18	253	253	.....	.....	.....	.....
		Females..	47.51	10,463	2.19	229	229	.....	.....	.....	.....
Bay.....	96	Total.....	.....	24,832	3.70	920	914	.....	1	5	.....
		Males.....	49.02	13,657	3.30	451	449	.....	.....	2	.....
		Females..	50.98	11,175	4.19	469	465	.....	1	3	.....

<sup>a</sup> For counties and townships from which no returns of births were received, see Table XXI.

<sup>b</sup> Includes 8 "Colored."

<sup>c</sup> Includes 6 "White and Indian," 4 "Half-Indian," and 9 "Half-breed."

<sup>d</sup> Includes 7 "Colored."

<sup>e</sup> Includes 9 "White and Indian," 3 "Half-Indian," 14 "Half-breed," and 1 "Red."

<sup>f</sup> Includes population of Oscoda county.

<sup>g</sup> Population of Baraga county is included in statement of population of Houghton county, and cannot be ascertained.

<sup>h</sup> Includes 4 "Half-Indian."

<sup>i</sup> Includes 3 "Half-Indian."

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES. <sup>a</sup>	Births,— Males to 100 Females.	Sex.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874, Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Benzie .....	105	Total .....	-----	2,663	3.15	84	82	-----	2	-----	-----
		Males .....	51.19	1,422	3.02	43	41	-----	2	-----	-----
		Females..	48.81	1,241	3.30	41	41	-----	-----	-----	-----
Berrien .....	107	Total .....	-----	35,029	2.20	771	760	6	4	-----	1
		Males .....	51.63	17,942	2.21	397	394	b 2	1	-----	-----
		Females..	48.37	17,087	2.18	372	365	b 4	3	-----	-----
		Unknown	-----	-----	-----	2	1	-----	-----	-----	1
Branch. . . .	103	Total .....	-----	25,726	1.87	482	475	-----	-----	-----	7
		Males .....	50.73	13,041	1.87	244	241	-----	-----	-----	3
		Females..	49.27	12,685	1.87	237	233	-----	-----	-----	4
		Unknown	-----	-----	-----	1	1	-----	-----	-----	-----
Calhoun.....	102	Total .....	-----	35,655	1.67	594	583	2	2	2	5
		Males .....	50.51	18,156	1.65	299	294	1	1	-----	3
		Females..	49.49	17,499	1.67	293	287	1	1	2	2
		Unknown	-----	-----	-----	2	2	-----	-----	-----	-----
Cass.....	110	Total .....	-----	20,525	2.18	447	419	4	22	-----	2
		Males .....	52.35	10,592	2.21	234	225	b 3	5	-----	1
		Females..	47.65	9,933	2.14	213	194	1	17	-----	1
Charlevoix..	115	Total .....	-----	2,360	5.00	118	113	-----	-----	5	-----
		Males .....	53.39	1,280	4.92	63	59	-----	-----	4	-----
		Females..	46.61	1,080	5.09	55	54	-----	-----	1	-----
Cheboygan..	70	Total .....	-----	3,070	3.91	120	116	-----	1	3	-----
		Males .....	41.18	1,706	2.87	49	46	-----	1	2	-----
		Females..	58.82	1,364	5.13	70	69	-----	-----	1	-----
		Unknown	-----	-----	-----	1	1	-----	-----	-----	-----
Chippewa.. <sup>a</sup>	90	Total .....	-----	1,617	6.12	99	75	-----	-----	24	-----
		Males .....	47.47	918	5.12	47	36	-----	-----	c 11	-----
		Females..	52.53	699	7.44	52	39	-----	-----	d 13	-----
Clare .....	82	Total .....	-----	1,354	5.91	80	80	-----	-----	-----	-----
		Males .....	45.00	745	4.83	36	36	-----	-----	-----	-----
		Females..	55.00	609	7.22	44	44	-----	-----	-----	-----
Clinton .....	105	Total .....	-----	23,661	2.60	615	614	1	-----	-----	-----
		Males .....	51.22	12,162	2.59	315	315	-----	-----	-----	-----
		Females..	43.78	11,499	2.61	300	299	1	-----	-----	-----

<sup>a</sup> For counties and townships from which no returns of births were received, see Table XXI.<sup>b</sup> Includes 1 "Colored."<sup>c</sup> Includes 9 "Half-breed."<sup>d</sup> Includes 13 "Half-breed."



BIRTHS BY COUNTIES, BY SEX, BY COLOR.

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TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES. <sup>a</sup>	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1873.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1873.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Worcester	86	Total.....				13	13				
		Males.....	46.15			6	6				
		Females.....	53.85			7	7				
Taunton	104	Total.....		4,741	3.40	161	158			3	
		Males.....	50.93	2,882	2.85	82	81			1	
		Females.....	49.07	1,859	4.25	79	77			2	
Dorchester	95	Total.....		26,907	2.25	605	604	1			
		Males.....	48.84	13,875	2.13	295	294	1			
		Females.....	51.16	13,032	2.37	309	309				
		Unknown.....				1	1				
Norfolk	94	Total.....		1,272	8.18	104	66			38	
		Males.....	48.54	669	7.47	50	31			19	
		Females.....	51.46	603	8.79	53	35			18	
		Unknown.....				1				1	
Essex	96	Total.....		34,568	2.22	768	765	2	1		
		Males.....	49.09	17,536	2.15	377	376	1			
		Females.....	50.91	17,032	2.30	391	389	1	1		
Hampden	125	Total.....		265	6.79	18	18				
		Males.....	55.56	145	6.90	10	10				
		Females.....	44.44	120	6.67	8	8				
Hampshire	131	Total.....		5,349	2.77	148	148				
		Males.....	56.76	2,801	3.00	84	84				
		Females.....	43.24	2,548	2.51	64	64				
Middlesex	116	Total.....		13,886	3.00	416	416				
		Males.....	53.61	7,304	3.05	223	223				
		Females.....	46.39	6,582	2.93	193	193				
Suffolk	107	Total.....		31,566	1.62	510	510				
		Males.....	51.76	15,971	1.65	264	264				
		Females.....	48.24	15,595	1.58	246	246				
Houghton <sup>a</sup>	106	Total.....		19,030	4.80	914	914				
		Males.....	51.48	11,013	4.26	469	469				
		Females.....	48.52	8,017	5.51	442	442				
		Unknown.....				3	3				

<sup>a</sup>For townships from which no returns of births were received, see Table XXI.  
<sup>b</sup>Organized since census was taken.

<sup>c</sup>Includes 2 "Half-breed."

<sup>d</sup>Includes 1 "Colored."

<sup>e</sup>Population of Baraga county is included in statement of population of Houghton county, and not be ascertained.



## VITAL STATISTICS OF MICHIGAN, 1878.

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES. <sup>a</sup>	Births,— Males to 100 Females.	Sex.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
		Total.....	-----	11,964	4.76	570	570	-----	-----	-----	-----
Huron.....	110	Males.....	52.28	6,614	4.51	298	298	-----	-----	-----	-----
		Females..	47.72	5,350	5.08	272	272	-----	-----	-----	-----
		Total.....	-----	29,193	2.03	593	579	3	-----	-----	11
Ingham.....	111	Males.....	52.70	15,204	2.05	312	306	1	-----	-----	5
		Females..	47.30	13,989	2.00	280	272	b 2	-----	-----	6
		Unknown	-----	-----	-----	1	1	-----	-----	-----	-----
		Total.....	-----	28,376	2.19	621	621	-----	-----	-----	-----
Ionia.....	104	Males.....	50.97	14,788	2.14	316	316	-----	-----	-----	-----
		Females..	49.03	13,588	2.24	304	304	-----	-----	-----	-----
		Unknown	-----	-----	-----	1	1	-----	-----	-----	-----
		Total.....	-----	4,575	1.49	68	68	-----	-----	-----	-----
Iosco.....	134	Males.....	57.35	2,706	1.44	39	39	-----	-----	-----	-----
		Females..	42.65	1,869	1.55	29	29	-----	-----	-----	-----
		Total.....	-----	5,766	3.97	229	217	-----	1	11	-----
Isabella.....	103	Males.....	50.66	3,120	3.72	116	109	-----	1	6	-----
		Females..	49.34	2,646	4.27	113	108	-----	-----	5	-----
Isle Royal..											
		Total.....	52.76	37,988	2.05	779	774	4	-----	-----	1
Jackson.....	112	Males.....	47.24	19,853	2.07	411	409	2	-----	-----	-----
		Females..	-----	18,135	2.03	368	365	2	-----	-----	1
		Total.....	-----	32,284	1.84	593	592	7	2	-----	2
Kalamazoo..	123	Males.....	54.90	16,583	1.96	325	319	b 4	2	-----	-----
		Females..	45.10	15,701	1.70	267	263	3	-----	-----	1
		Unknown	-----	-----	-----	1	-----	-----	-----	-----	1
		Total.....	-----	1,259	5.24	66	66	-----	-----	-----	-----
Kalkaska...	75	Males.....	43.94	692	4.19	29	29	-----	-----	-----	-----
		Females..	56.06	567	6.53	37	37	-----	-----	-----	-----
		Total.....	-----	62,671	2.60	1,631	1,612	15	1	-----	3
Kent.....	104	Males.....	50.95	32,376	2.54	829	822	6	1	-----	-----
		Females..	49.05	30,095	2.65	798	789	9	-----	-----	-----
		Unknown	-----	-----	-----	4	1	-----	-----	-----	3

<sup>a</sup> For townships from which no returns of births were received, see Table XXI.<sup>b</sup> Includes 1 "Colored."<sup>c</sup> No returns from county clerk.

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births.— Males to 100 Females.	Sex.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Keweenaw .	112	Total .....		5,411	4.97	269	269				
		Males .....	52.81	3,233	4.36	141	141				
		Females .....	47.19	2,178	5.79	128	128				
		Unknown .....				2	2				
Lake .....	92	Total .....		1,913	3.81	63	63			1	
		Males .....	47.63	1,015	3.25	33	33			1	
		Females .....	52.17	798	4.51	36	36				
Lapeer.....	107	Total .....		25,140	2.15	540	537		3		
		Males .....	51.76	13,065	2.13	279	278		1		
		Females .....	48.24	12,045	2.16	260	258		2		
		Unknown .....				1	1				
Leelanaw....	125	Total .....		5,031	3.22	162	156			6	
		Males .....	55.56	2,692	3.34	90	88			2	
		Females .....	44.44	2,339	3.09	72	68			4	
Lenawee.....	117	Total .....		46,084	1.63	752	745	5	1		1
		Males .....	54.01	23,256	1.74	404	399	4	1		
		Females .....	45.99	22,828	1.51	344	343	1			
		Unknown .....				4	3				1
Livingston..	96	Total .....		20,329	2.21	449	449				
		Males .....	47.44	10,569	2.02	213	213				
		Females .....	52.56	9,760	2.42	236	236				
Mackinac...•	106	Total .....		373	9.95	37	22			15	
		Males .....	51.35	193	9.84	19	13			6	
		Females .....	48.65	179	10.06	18	9			9	
Macomb.....	121	Total .....		23,305	2.45	693	690	1	2		
		Males .....	54.77	14,367	2.64	379	378		1		
		Females .....	45.23	13,938	2.25	313	311	1	1		
		Unknown .....				1	1				
Manistee.....	115	Total .....		8,471	4.19	355	355				
		Males .....	53.52	4,792	3.96	190	190				
		Females .....	46.48	3,679	4.48	165	165				
Manitou.....	114	Total .....		657	4.57	30	30				
		Males .....	53.33	364	4.40	16	16				
		Females .....	46.67	293	4.78	14	14				

<sup>a</sup> For townships from which no returns of births were received, see Table XXI.<sup>b</sup> Includes 6 "White and Indian."<sup>c</sup> Includes 9 "White and Indian."

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.				
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.
Huron.....	110	Total.....	-----	11,964	4.76	570	570	-----	-----	-----
		Males.....	52.28	6,614	4.51	298	298	-----	-----	-----
		Females..	47.72	5,350	5.08	272	272	-----	-----	-----
Ingham.....	111	Total.....	-----	29,193	2.03	593	579	3	-----	11
		Males.....	52.70	15,204	2.05	312	306	1	-----	5
		Females..	47.30	13,989	2.00	280	272	b 2	-----	6
		Unknown	-----	-----	-----	1	1	-----	-----	-----
Ionia.....	104	Total.....	-----	28,376	2.19	621	621	-----	-----	-----
		Males.....	50.97	14,788	2.14	316	316	-----	-----	-----
		Females..	49.03	13,588	2.24	304	304	-----	-----	-----
Iosco.....	134	Total.....	-----	4,575	1.49	66	66	-----	-----	-----
		Males.....	57.35	2,706	1.44	39	39	-----	-----	-----
		Females..	42.65	1,869	1.55	29	29	-----	-----	-----
Isabella.....	103	Total.....	-----	5,768	3.97	229	217	-----	1	11
		Males.....	50.66	3,120	3.72	116	109	-----	1	6
		Females..	49.34	2,646	4.27	113	108	-----	-----	5
Isle Royal..			-----	-----	-----	-----	-----	-----	-----	-----
Jackson.....	112	Total.....	52.76	37,968	2.05	779	774	4	-----	1
		Males.....	47.24	19,853	2.07	411	409	2	-----	-----
		Females..	-----	18,135	2.03	368	365	2	-----	1
Kalamazoo..	122	Total.....	-----	32,284	1.84	593	532	7	2	2
		Males.....	54.90	16,583	1.96	325	319	b 4	2	-----
		Females..	45.10	15,701	1.70	267	263	3	-----	1
		Unknown	-----	-----	-----	1	-----	-----	-----	1
Kalkaska...	78	Total.....	-----	1,259	5.24	66	66	-----	-----	-----
		Males.....	43.94	692	4.19	29	29	-----	-----	-----
		Females..	56.06	567	6.53	37	37	-----	-----	-----
Kent.....	104	Total.....	-----	62,671	2.60	1,631	1,612	15	1	3
		Males.....	50.95	32,376	2.54	829	822	6	1	-----
		Females..	49.05	30,095	2.65	798	789	9	-----	-----
		Unknown	-----	-----	-----	4	1	-----	-----	3

a For townships from which no returns of births were received, see Table XXI.

b Includes 1 "Colored."

c No returns from county clerk.

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES. <sup>a</sup>	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Keweenaw .	112	Total.....		5,411	4.97	269	269				
		Males.....	52.81	3,233	4.36	141	141				
		Females.....	47.19	2,178	5.79	128	128				
		Unknown.....				2	2				
Lake .....	92	Total.....		1,813	3.81	69	68			1	
		Males.....	47.63	1,015	3.25	33	32			1	
		Females.....	52.17	798	4.51	36	36				
Lapeer.....	107	Total.....		25,140	2.15	540	537		3		
		Males.....	51.76	13,065	2.13	279	278		1		
		Females.....	48.24	12,045	2.16	260	258		2		
		Unknown.....				1	1				
Leelanaw....	125	Total.....		5,031	3.22	162	156			6	
		Males.....	55.56	2,692	3.34	90	88			2	
		Females.....	44.44	2,339	3.09	72	68			4	
Lenawee.....	117	Total.....		46,084	1.63	752	745	5	1		1
		Males.....	54.01	23,256	1.74	404	399	4	1		
		Females.....	45.99	22,828	1.51	344	343	1			
		Unknown.....				4	3				1
Livingston...	90	Total.....		20,329	2.21	449	449				
		Males.....	47.44	10,569	2.02	213	213				
		Females.....	52.56	9,760	2.42	236	236				
Mackinac... <sup>c</sup>	106	Total.....		372	9.95	37	22			15	
		Males.....	51.35	193	9.84	19	13			6	
		Females.....	48.65	179	10.06	18	9			9	
Macomb.....	121	Total.....		23,305	2.45	693	690	1	2		
		Males.....	54.77	14,367	2.64	379	378		1		
		Females.....	45.23	13,938	2.25	313	311	1	1		
		Unknown.....				1	1				
Manistee....	116	Total.....		8,471	4.19	355	355				
		Males.....	53.52	4,792	3.96	190	190				
		Females.....	46.48	3,679	4.46	165	165				
Manitou.....	114	Total.....		657	4.57	30	30				
		Males.....	53.33	364	4.40	16	16				
		Females.....	46.67	293	4.73	14	14				

<sup>a</sup> For townships from which no returns of births were received, see Table XXI.<sup>b</sup> Includes 6 "White and Indian."<sup>c</sup> Includes 9 "White and Indian."



TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Marquette..	111	Total.....	-----	21,946	3.29	721	721	-----	-----	-----	-----
		Males.....	52.57	12,893	2.94	379	379	-----	-----	-----	-----
		Females..	47.43	9,053	3.78	342	342	-----	-----	-----	-----
Mason .....	106	Total.....	-----	5,361	3.41	183	180	-----	-----	3	-----
		Males.....	51.37	2,971	3.16	94	92	-----	-----	2	-----
		Females..	48.63	2,390	3.72	89	88	-----	-----	1	-----
Mecosta ....	92	Total.....	-----	9,132	2.90	265	257	-----	5	3	-----
		Males.....	47.91	4,874	2.59	126	122	-----	3	1	-----
		Females..	52.09	4,258	3.22	137	133	-----	2	2	-----
		Unknown	-----	-----	-----	2	2	-----	-----	-----	-----
Menominee*	105	Total.....	-----	3,248	1.39	45	42	-----	-----	2	1
		Males.....	51.11	2,054	1.12	23	20	-----	-----	2	1
		Females..	48.89	1,194	1.84	22	22	-----	-----	-----	-----
Midland.....	97	Total.....	-----	4,765	3.55	169	169	-----	-----	-----	-----
		Males.....	49.11	2,593	3.20	83	83	-----	-----	-----	-----
		Females..	50.89	2,172	3.96	86	86	-----	-----	-----	-----
Missaukee..	81	Total.....	-----	606	6.27	38	38	-----	-----	-----	-----
		Males.....	44.74	395	4.30	17	17	-----	-----	-----	-----
		Females..	55.26	211	9.95	21	21	-----	-----	-----	-----
Monroe.....	108	Total.....	-----	30,111	2.85	839	867	1	-----	-----	1
		Males.....	51.93	15,302	2.91	445	445	-----	-----	-----	-----
		Females..	48.07	14,809	2.78	412	411	1	-----	-----	-----
		Unknown	-----	-----	-----	2	1	-----	-----	-----	1
Montcalm...	123	Total.....	-----	20,815	2.91	605	602	-----	-----	-----	3
		Males.....	55.13	11,311	2.94	333	333	-----	-----	-----	-----
		Females..	44.87	9,504	2.85	271	269	-----	-----	-----	2
		Unknown	-----	-----	-----	1	-----	-----	-----	-----	1
Muskegon ..	128	Total.....	-----	18,015	2.96	533	533	-----	-----	-----	-----
		Males.....	56.10	10,015	2.99	299	299	-----	-----	-----	-----
		Females..	43.90	8,000	2.93	234	234	-----	-----	-----	-----
Newaygo ...	129	Total.....	-----	8,758	2.77	243	242	1	-----	-----	-----
		Males.....	56.25	4,879	2.77	135	135	-----	-----	-----	-----
		Females..	43.75	3,879	2.71	105	104	1	-----	-----	-----
		Unknown	-----	-----	-----	3	3	-----	-----	-----	-----

\* For townships from which no returns of births were received, see Table XXI.

BIRTHS BY COUNTIES, BY SEX, BY COLOR.

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TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	Sex.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Oakland.....	102	Total.....	-----	38,082	1.68	641	636	1	3	-----	1
		Males ....	50.39	19,446	1.65	321	317	1	3	-----	-----
		Females ..	49.61	18,636	1.70	316	316	-----	-----	-----	-----
		Unknown ..	-----	-----	-----	4	3	-----	-----	-----	1
Oceana.....	95	Total.....	-----	8,360	2.29	275	264	-----	-----	11	-----
		Males ....	48.73	4,581	2.93	134	132	-----	-----	2	-----
		Females..	51.27	3,779	3.78	141	132	-----	-----	9	-----
Ogemaw ....	150	Total.....	-----	207	2.41	5	5	-----	-----	-----	-----
		Males ....	60.00	103	1.96	3	3	-----	-----	-----	-----
		Females ..	40.00	54	3.70	2	2	-----	-----	-----	-----
Ontonagon..	97	Total.....	-----	2,406	2.87	69	69	-----	-----	-----	-----
		Males ....	49.28	1,276	2.66	34	34	-----	-----	-----	-----
		Females..	50.72	1,130	3.10	35	35	-----	-----	-----	-----
Osceola .....	181	Total.....	-----	6,216	4.13	257	256	-----	-----	-----	1
		Males ....	56.64	3,491	4.15	145	145	-----	-----	-----	-----
		Females..	43.36	2,725	4.07	111	111	-----	-----	-----	-----
		Unknown ..	-----	-----	-----	1	-----	-----	-----	-----	1
Otsego .....	156	Total.....	-----	238	9.66	23	23	-----	-----	-----	-----
		Males ....	60.87	162	8.64	14	14	-----	-----	-----	-----
		Females..	39.13	76	11.84	9	9	-----	-----	-----	-----
Ottawa.....	97	Total.....	-----	29,929	2.87	859	856	2	-----	-----	1
		Males ....	49.36	15,789	2.68	423	422	-----	-----	-----	-----
		Females ..	50.64	14,140	3.07	434	432	2	-----	-----	-----
		Unknown ..	-----	-----	-----	2	1	-----	-----	-----	1
Presque Isle..	96	Total.....	-----	1,615	5.70	92	92	-----	-----	-----	-----
		Males ....	48.91	851	5.29	45	45	-----	-----	-----	-----
		Females..	51.09	764	6.15	47	47	-----	-----	-----	-----
Roscommon..	400	Total.....	-----	276	1.81	5	5	-----	-----	-----	-----
		Males ....	80.00	137	2.14	4	4	-----	-----	-----	-----
		Females..	20.00	89	1.12	1	1	-----	-----	-----	-----
Saginaw ....	106	Total.....	-----	48,409	2.87	1,391	1,383	-----	1	7	-----
		Males ....	51.40	25,968	2.75	715	709	-----	1	5	-----
		Females..	48.60	22,441	3.01	676	674	-----	-----	2	-----

\* For townships from which no returns of births were received, see Table XXI.

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES. <sup>a</sup>	Births,— Males to 100 Females.	Sex.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1874 Rep- resented by Births in 1878.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR.—CHILDREN BORN IN 1878.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Sanilac.....	120	Total.....	-----	16,292	3.82	623	622	-----	-----	-----	1
		Males.....	54.50	8,652	3.92	339	339	-----	-----	-----	-----
		Females..	45.50	7,640	3.70	283	283	-----	-----	-----	-----
		Unknown	-----	-----	-----	1	-----	-----	-----	-----	1
Schoolcraft..	75	Total.....	-----	818	1.71	14	14	-----	-----	-----	-----
		Males.....	42.86	504	1.19	6	6	-----	-----	-----	-----
		Females..	57.14	314	2.55	8	8	-----	-----	-----	-----
Shiawassee..	101	Total.....	-----	20,275	2.52	510	510	-----	-----	-----	-----
		Males.....	50.20	10,487	2.44	256	256	-----	-----	-----	-----
		Females..	49.80	9,788	2.60	254	254	-----	-----	-----	-----
St. Clair.....	115	Total.....	-----	40,638	2.40	977	941	1	-----	-----	35
		Males.....	53.43	21,181	2.46	522	504	1	-----	-----	17
		Females..	46.57	19,507	2.33	455	437	-----	-----	-----	18
St. Joseph..	101	Total.....	-----	25,906	1.89	489	485	3	1	-----	-----
		Males.....	50.31	13,267	1.85	246	244	2	-----	-----	-----
		Females..	49.69	12,639	1.92	243	241	1	1	-----	-----
Tuscola.....	104	Total.....	-----	16,998	3.03	515	513	-----	1	1	-----
		Males.....	50.87	8,950	2.93	262	262	-----	-----	-----	-----
		Females..	49.13	8,048	3.14	253	251	-----	1	1	-----
Van Buren..	106	Total.....	-----	22,156	2.11	616	604	4	7	1	-----
		Males.....	51.54	15,062	2.10	317	313	2	1	1	-----
		Females..	48.46	14,094	2.11	298	290	2	6	-----	-----
		Unknown	-----	-----	-----	1	1	-----	-----	-----	-----
Washtenaw..	109	Total.....	-----	38,723	1.52	589	575	12	2	-----	-----
		Males.....	52.13	19,553	1.56	306	301	3	2	-----	-----
		Females..	47.87	19,170	1.47	281	272	9	-----	-----	-----
		Unknown	-----	-----	-----	2	2	-----	-----	-----	-----
Wayne.....	115	Total.....	-----	144,903	3.58	5,192	5,138	46	7	-----	1
		Males.....	53.43	72,306	3.82	2,765	2,738	23	4	-----	-----
		Females..	46.57	72,597	3.32	2,410	2,384	23	3	-----	-----
		Unknown	-----	-----	-----	17	16	-----	-----	-----	1
Wexford.....	94	Total.....	-----	3,011	6.61	199	197	1	-----	-----	1
		Males.....	48.47	1,752	5.42	95	95	-----	-----	-----	-----
		Females..	51.53	1,259	8.02	101	100	1	-----	-----	-----
		Unknown	-----	-----	-----	3	2	-----	-----	-----	1

<sup>a</sup> For townships from which no returns of births were received, see Table XXI.<sup>b</sup> Includes 1 "Red."<sup>c</sup> Includes 1 "Colored."<sup>d</sup> Includes 2 "Colored."

Table VII. shows the parent-nativity of children born in Michigan in 1878, as shown by the returns. Of all the children born, 46.42 per cent. were born of parents who were both native-born, and 34.10 per cent. were born of parents who were both foreign-born.

**TABLE VII.**—*Exhibiting, by Sex, by Number, and by Per Cent. of Total, the Parent-Nativity of Children returned as having been Born in Michigan during the Year 1878.*

NATIVITY OF PARENTS OF CHILDREN BORN, 1878.	TOTAL BIRTHS, 1878.							
	NUMBER.				PER CENT. OF TOTAL.			
	Total.	Males.	Females.	Unk.	Total.	Males.	Females.	Unk.
<b>All Nativities .....</b>	<b>25,182</b>	<b>18,224</b>	<b>16,871</b>	<b>67</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>
<b>Both Parents Native .....</b>	<b>16,323</b>	<b>8,485</b>	<b>7,813</b>	<b>25</b>	<b>46.42</b>	<b>46.56</b>	<b>46.31</b>	<b>37.31</b>
<b>Both Parents Foreign .....</b>	<b>11,992</b>	<b>6,216</b>	<b>5,782</b>	<b>24</b>	<b>34.10</b>	<b>34.11</b>	<b>34.09</b>	<b>35.82</b>
<b>Foreign Father and Native Mother .....</b>	<b>3,861</b>	<b>1,954</b>	<b>1,904</b>	<b>3</b>	<b>10.98</b>	<b>10.72</b>	<b>11.29</b>	<b>4.48</b>
<b>Foreign Mother and Native Father .....</b>	<b>1,966</b>	<b>1,049</b>	<b>907</b>	-----	<b>5.56</b>	<b>5.76</b>	<b>5.38</b>	-----
<b>Unknown Mother, Father Native ..</b>	<b>210</b>	<b>100</b>	<b>108</b>	<b>2</b>	<b>.60</b>	<b>.55</b>	<b>.64</b>	<b>2.99</b>
<b>Unknown Mother, Father Foreign ..</b>	<b>128</b>	<b>67</b>	<b>61</b>	-----	<b>.36</b>	<b>.37</b>	<b>.36</b>	-----
<b>Unknown Father, Mother Native ..</b>	<b>205</b>	<b>100</b>	<b>104</b>	<b>1</b>	<b>.58</b>	<b>.55</b>	<b>.62</b>	<b>1.49</b>
<b>Unknown Father, Mother Foreign ..</b>	<b>84</b>	<b>32</b>	<b>51</b>	<b>1</b>	<b>.24</b>	<b>.18</b>	<b>.30</b>	<b>1.49</b>
<b>Both Unknown .....</b>	<b>408</b>	<b>221</b>	<b>171</b>	<b>11</b>	<b>1.15</b>	<b>1.21</b>	<b>1.01</b>	<b>10.42</b>
<b>One or Both Native .....</b>	<b>22,555</b>	<b>11,688</b>	<b>10,836</b>	<b>31</b>	<b>64.15</b>	<b>64.14</b>	<b>64.23</b>	<b>46.25</b>
<b>One or Both Foreign .....</b>	<b>18,021</b>	<b>9,318</b>	<b>8,675</b>	<b>28</b>	<b>51.25</b>	<b>51.18</b>	<b>51.42</b>	<b>41.79</b>

Exhibit F is similar to Table VII., and shows, by parent-nativity, the number and per cent. of children born in this State during each of the years 1873-1878. It may be seen that 52.58 per cent. of all the mothers, and 57.99 per cent. of the fathers, in 1878, were native-born.



**EXHIBIT F.—Parent-Nativity of Children Born in Michigan during each of the Years 1873 to 1878, inclusive, according to the Returns.**

NATIVITY OF PARENTS OF CHILDREN BORN.	1873.		1874.		1875.		1876.		1877.		1878.	
	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.
All Nativities.....	34,808	100.00	31,151	100.00	31,358	100.00	34,235	100.00	33,395	100.00	35,163	100.00
Both Parents Native....	16,202	46.81	13,341	42.83	14,226	44.51	15,551	45.42	15,270	45.73	16,323	46.43
Both Parents Foreign....	11,946	34.52	10,517	33.76	11,120	34.80	11,901	34.76	11,537	34.61	11,992	34.10
Foreign Father and Na- tive Mother.....	3,388	9.79	3,130	10.05	3,246	10.16	3,587	10.48	3,635	10.88	3,861	10.98
Foreign Mother and Na- tive Father.....	1,941	5.61	1,680	5.39	1,727	5.40	1,868	5.46	1,948	5.83	1,956	5.56
One or Both Unknown..	1,131	3.27	2,483	7.97	1,639	5.13	1,328	3.88	985	2.95	1,080	2.93
One or Both Parents Native.....	21,531	62.21	18,151	58.27	19,199	60.08	21,006	61.36	20,853	62.44	22,140	62.97
One or Both Parents Foreign.....	17,275	49.91	15,327	49.20	16,093	50.36	17,356	50.70	17,140	51.33	17,809	50.65
Father.....	Native.....				16,309	51.03	17,703	51.71	17,392	52.08	18,489	52.58
	Foreign.....				14,812	46.35	15,721	45.92	15,318	45.85	15,961	45.45
	Unknown.....				837	2.62	811	2.37	690	2.07	692	1.97
Mother.....	Native.....				17,686	55.34	19,347	56.51	19,098	57.19	20,339	57.99
	Foreign.....				12,961	40.59	13,863	40.46	13,599	40.72	14,032	39.91
	Unknown.....				1,311	4.10	1,085	3.02	696	2.09	741	2.11

<sup>a</sup> Excluding cases where nativity of either parent is unknown.

Table VIII. also contains data concerning the parent-nativity of children born in Michigan in 1878. The table may be studied with interest and profit.

TABLE VIII.—*Exhibiting, for the State and Counties of Michigan, by Sex, the Total Number of Children returned as having been Born during the Year 1878, and the Parent-Nativity of such Children, so far as stated in the Returns. (Still-births included.)*

STATE AND COUNTIES.		Sex.	Children Born, 1878.	NATIVITY OF PARENTS OF CHILDREN BORN,—1878. *								Both Unknown.
				Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
								Father.		Mother.		
								Na- tive.	For- eign.	Na- tive.	For- eign.	
State	Total.....	85,182	16,323	11,992	3,861	1,958	210	128	205	84	408	
	Males.....	18,224	8,485	6,216	1,954	1,049	100	67	100	32	221	
	Females..	16,871	7,813	5,752	1,904	907	108	61	104	51	171	
	Unknown	67	25	24	3	.....	2	.....	1	1	11	
Alcona	Total.....	34	12	12	2	6	.....	.....	.....	1	1	
	Males.....	15	6	5	.....	3	.....	.....	.....	.....	1	
	Females..	19	6	7	2	3	.....	.....	.....	1	.....	
Allegan	Total.....	813	467	180	108	41	2	3	1	1	1	
	Males.....	409	244	86	56	18	1	2	1	.....	1	
	Females..	403	223	102	52	23	1	1	.....	1	.....	
	Unknown	1	.....	1	.....	.....	.....	.....	.....	.....	.....	
Alpena	Total.....	194	30	127	20	10	.....	3	.....	1	3	
	Males.....	108	14	71	12	6	.....	2	.....	1	2	
	Females..	85	16	55	8	4	.....	1	.....	.....	1	
	Unknown	1	.....	1	.....	.....	.....	.....	.....	.....	.....	
Antrim	Total.....	90	44	27	13	1	3	.....	.....	.....	2	
	Males.....	45	19	14	9	.....	2	.....	.....	.....	1	
	Females..	45	25	13	4	1	1	.....	.....	.....	1	
Baraga	Total.....	54	13	30	9	1	.....	.....	1	.....	.....	
	Males.....	31	8	15	7	.....	.....	.....	1	.....	.....	
	Females..	23	5	15	2	1	.....	.....	.....	.....	.....	
Barry	Total.....	493	378	24	46	23	6	.....	2	.....	3	
	Males.....	253	196	15	22	14	4	.....	1	.....	1	
	Females..	229	182	9	24	9	2	.....	1	.....	2	
Bay	Total.....	920	234	447	149	78	.....	2	2	2	6	
	Males.....	451	115	221	73	35	.....	1	2	2	2	
	Females..	469	119	226	76	43	.....	1	.....	.....	4	
Benzie	Total.....	84	41	20	12	10	1	.....	.....	.....	.....	
	Males.....	43	23	10	4	6	.....	.....	.....	.....	.....	
	Females..	41	18	10	8	4	1	.....	.....	.....	.....	

\* A "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

† For counties and townships from which no returns of births were received, see Table XXI.

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

		NATIVITY OF PARENTS OF CHILDREN BORN,—1878. a									
COUNTIES.	SEX.	Children Born, 1878.			Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
			Both Native.	Both Foreign.			Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Berrien.....	Total.....	771	476	161	90	32	3	-----	4	-----	5
	Males.....	397	243	84	46	16	2	-----	3	-----	3
	Females..	372	233	76	43	16	1	-----	1	-----	2
	Unknown	2	-----	1	1	-----	-----	-----	-----	-----	-----
Branch.....	Total.....	492	393	35	31	17	1	-----	4	-----	1
	Males.....	244	201	17	15	9	1	-----	1	-----	-----
	Females..	237	192	18	16	8	-----	-----	3	-----	-----
	Unknown	1	-----	-----	-----	-----	-----	-----	-----	-----	1
Calhoun.....	Total.....	594	415	69	53	17	16	6	4	1	13
	Males.....	299	200	40	27	10	8	3	3	1	7
	Females..	293	214	29	26	7	8	3	1	-----	5
	Unknown	2	1	-----	-----	-----	-----	-----	-----	-----	1
Cass.....	Total.....	447	354	32	35	15	1	-----	7	-----	3
	Males.....	224	184	17	18	8	-----	-----	4	-----	3
	Females..	213	170	15	17	7	1	-----	3	-----	-----
	Unknown	118	48	30	28	8	-----	1	-----	-----	3
Charlevoix.....	Total.....	63	23	20	15	4	-----	-----	-----	-----	1
	Males.....	55	25	10	13	4	-----	1	-----	-----	2
	Females..	120	46	44	24	6	-----	-----	-----	-----	-----
	Unknown	49	20	15	11	3	-----	-----	-----	-----	-----
Cheboygan.....	Total.....	70	25	29	13	3	-----	-----	-----	-----	-----
	Males.....	1	1	-----	-----	-----	-----	-----	-----	-----	-----
	Females..	99	36	37	14	5	1	-----	5	1	-----
	Unknown	47	20	17	9	-----	-----	-----	1	-----	-----
Chippewa.....	Total.....	52	16	20	5	5	1	-----	4	1	-----
	Males.....	80	30	22	8	6	2	-----	1	-----	2
	Females..	36	21	5	5	2	2	-----	-----	-----	1
	Unknown	44	18	17	3	4	-----	-----	1	-----	1
Clare.....	Total.....	615	444	90	49	24	1	-----	3	-----	4
	Males.....	315	222	46	28	14	-----	-----	2	-----	3
	Females..	300	222	44	21	10	1	-----	1	-----	1
	Unknown	13	7	3	1	2	-----	-----	-----	-----	-----
Crawford.....	Total.....	6	4	1	-----	1	-----	-----	-----	-----	-----
	Males.....	7	3	2	1	1	-----	-----	-----	-----	-----
	Females..	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
	Unknown	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\* "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

		NATIVITY OF PARENTS OF CHILDREN BORN,—1878 a									
COUNTIES.	SEX.	Children Born, 1878.					MOTHER UNK.		FATHER UNK.		Both Unknown.
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Delta.....	Total.....	161	21	109	21	6	-----	2	1	-----	1
	Males.....	82	10	56	11	2	-----	2	-----	-----	1
	Females.....	79	11	53	10	4	-----	-----	1	-----	-----
Eaton.....	Total.....	605	494	22	38	32	5	1	8	1	4
	Males.....	295	238	11	17	17	3	1	5	1	2
	Females.....	309	255	11	21	15	2	-----	3	-----	2
	Unknown.....	1	1	-----	-----	-----	-----	-----	-----	-----	-----
Emmet.....	Total.....	104	64	18	7	5	1	1	1	-----	7
	Males.....	50	32	5	3	3	1	1	1	-----	5
	Females.....	53	31	13	5	2	-----	-----	-----	-----	2
	Unknown.....	1	1	-----	-----	-----	-----	-----	-----	-----	-----
Genesee.....	Total.....	768	485	94	91	78	8	-----	6	-----	11
	Males.....	377	228	45	48	44	6	-----	1	-----	5
	Females.....	391	257	49	43	29	2	-----	5	-----	6
Gladwin.....	Total.....	18	6	9	1	1	1	-----	-----	-----	-----
	Males.....	10	5	3	1	1	-----	-----	-----	-----	-----
	Females.....	8	1	6	-----	-----	1	-----	-----	-----	-----
Grand Traverse.....	Total.....	148	84	38	15	11	-----	-----	-----	-----	2
	Males.....	84	53	16	7	6	-----	-----	-----	-----	2
	Females.....	64	31	20	8	5	-----	-----	-----	-----	-----
Gratiot.....	Total.....	416	322	31	38	18	1	-----	4	1	1
	Males.....	223	172	17	19	11	1	-----	2	-----	1
	Females.....	193	150	14	19	7	-----	-----	2	1	-----
Hillsdale.....	Total.....	510	453	16	18	16	-----	-----	-----	-----	7
	Males.....	264	234	9	8	10	-----	-----	-----	-----	3
	Females.....	246	219	7	10	6	-----	-----	-----	-----	4
Houghton.....	Total.....	914	64	718	101	17	-----	4	1	2	7
	Males.....	469	36	367	49	12	-----	-----	1	-----	4
	Females.....	442	27	349	52	5	-----	4	-----	2	3
	Unknown.....	3	1	2	-----	-----	-----	-----	-----	-----	-----
Huron.....	Total.....	570	52	383	67	43	7	11	1	5	1
	Males.....	298	31	206	29	22	4	3	-----	2	1
	Females.....	272	21	177	38	21	3	8	1	3	-----

<sup>a</sup> "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

		NATIVITY OF PARENTS OF CHILDREN BORN,—1878. <sup>a</sup>									
COUNTIES.	Sex.	Children Born, 1878.	Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
							Father.		Mother.		
							Na-tive.	For-eign.	Na-tive.	For-eign.	
Ingham	Total.....	593	454	44	46	25	11	4	4	2	3
	Males.....	312	243	21	22	11	7	2	2	1	3
	Females..	280	210	23	24	14	4	2	2	1	—
	Unknown	1	1	—	—	—	—	—	—	—	—
Ionia	Total.....	621	397	77	73	36	20	7	3	1	7
	Males.....	316	197	39	44	17	6	4	2	—	7
	Females..	304	200	38	28	19	14	3	1	1	—
	Unknown	1	—	—	1	—	—	—	—	—	—
Iosco	Total.....	68	16	41	8	3	—	—	—	—	—
	Males.....	39	7	25	4	3	—	—	—	—	—
	Females..	29	9	16	4	—	—	—	—	—	—
Isabella	Total.....	229	123	47	28	9	20	1	1	—	—
	Males.....	116	69	25	8	6	7	—	1	—	—
	Females..	113	54	22	20	3	13	1	—	—	—
Isle Royal..... <sup>b</sup>											
Jackson	Total.....	779	549	118	57	35	9	—	2	2	7
	Males.....	411	285	67	27	19	5	—	2	1	5
	Females..	368	264	51	30	16	4	—	—	1	2
Kalamazoo	Total.....	593	370	110	50	32	9	6	7	—	9
	Males.....	325	210	48	31	22	3	4	2	—	5
	Females..	267	160	62	19	10	6	2	5	—	3
	Unknown	1	—	—	—	—	—	—	—	—	1
Kalkaska	Total.....	66	36	14	10	5	1	—	—	—	—
	Males.....	29	13	8	5	3	—	—	—	—	—
	Females..	37	23	6	5	2	1	—	—	—	—
Kent	Total.....	1,631	698	578	177	85	5	4	17	2	75
	Males.....	829	355	296	89	37	1	2	8	1	40
	Females..	798	331	281	88	48	4	2	8	1	35
	Unknown	4	2	1	—	—	—	—	1	—	—
Keweenaw	Total.....	269	23	208	32	1	—	3	—	1	1
	Males.....	141	11	111	19	—	—	—	—	—	—
	Females..	126	12	95	13	1	—	3	—	1	1
	Unknown	2	—	2	—	—	—	—	—	—	—

<sup>a</sup> "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

<sup>b</sup> No returns for 1878 from County Clerk to the State Department.



TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

NATIVITY OF PARENTS OF CHILDREN BORN.—1878.*											
COUNTIES.	SEX.	Children Born, 1878.					MOTHER UNK.		FATHER UNK.		Both Unknown.
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Lake	Total.....	69	42	14	9	3	1				
	Males.....	33	22	4	3	3	1				
	Females.....	36	20	10	6						
Lapeer	Total.....	540	233	146	86	67		4	2	1	1
	Males.....	279	123	71	43	35		3	2	1	1
	Females.....	260	109	75	43	32		1			
	Unknown.....	1	1								
Leelanaw	Total.....	162	44	82	25	10					1
	Males.....	90	25	43	13	8					1
	Females.....	72	19	39	12	2					
Lenawee	Total.....	752	523	109	73	28	8		6		5
	Males.....	404	281	67	37	13	2		2		2
	Females.....	344	239	42	36	15	6		4		2
	Unknown.....	4	3								1
Livingston	Total.....	449	330	47	47	21	1		3		
	Males.....	213	154	24	19	14			2		
	Females.....	236	176	23	28	7	1		1		
Mackinac	Total.....	37	19	10	5	1			1		1
	Males.....	19	10	4	3	1					1
	Females.....	18	9	6	2				1		
Macomb	Total.....	693	300	272	82	36		1		1	1
	Males.....	379	163	146	48	21		1			
	Females.....	313	136	126	34	15				1	1
	Unknown.....	1	1								
Manistee	Total.....	355	73	211	45	25			1		
	Males.....	190	40	106	27	17					
	Females.....	165	33	105	18	8			1		
Manitou	Total.....	30	7	17	4	2					
	Males.....	16	5	6	3	2					
	Females.....	14	2	11	1						
Marquette	Total.....	721	50	579	64	25	1				2
	Males.....	379	19	308	35	15					2
	Females.....	342	31	271	29	10	1				
Mason	Total.....	183	85	53	33	8	1	1			2
	Males.....	94	47	24	16	5	1				1
	Females.....	89	38	29	17	3		1			1

\* "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

NATIVITY OF PARENTS OF CHILDREN BORN,—1878.											
COUNTIES.	Sex.	Children Born, 1878.	Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
							Father.		Mother.		
							Na-tive.	For-eign.	Na-tive.	For-eign.	
Macosta.....	Total.....	265	124	79	26	26	4	1	1	1	3
	Males.....	126	58	37	14	14	1	-----	-----	1	1
	Females..	137	65	42	12	12	2	1	1	-----	2
	Unknown	2	1	-----	-----	-----	1	-----	-----	-----	-----
Menominee.....	Total.....	45	11	17	11	1	-----	-----	4	-----	1
	Males.....	23	8	6	6	1	-----	-----	1	-----	1
	Females..	22	3	11	5	-----	-----	-----	3	-----	-----
Midland.....	Total.....	169	77	49	20	22	-----	-----	-----	-----	1
	Males.....	83	36	23	10	13	-----	-----	-----	-----	1
	Females..	86	41	26	10	9	-----	-----	-----	-----	-----
Missaukee.....	Total.....	38	12	19	8	3	-----	-----	-----	-----	1
	Males.....	17	4	8	2	3	-----	-----	-----	-----	-----
	Females..	21	8	11	1	-----	-----	-----	-----	-----	1
Monroe.....	Total.....	859	515	164	109	35	13	13	4	-----	6
	Males.....	445	280	74	49	19	7	9	3	-----	4
	Females..	412	234	90	60	16	6	4	1	-----	2
	Unknown	2	1	-----	-----	-----	-----	-----	-----	-----	-----
Montcalm.....	Total.....	605	378	105	69	37	3	5	3	-----	5
	Males.....	333	212	59	31	21	3	4	2	-----	1
	Females..	271	166	46	38	16	-----	1	1	-----	3
	Unknown	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Muskegon.....	Total.....	533	147	276	63	33	2	4	5	-----	3
	Males.....	299	78	161	34	18	-----	3	2	-----	-----
	Females..	234	69	115	29	15	2	1	3	-----	-----
Newaygo.....	Total.....	243	122	25	35	14	14	4	15	4	10
	Males.....	135	63	16	23	8	9	-----	8	-----	8
	Females..	108	57	9	12	6	5	4	7	4	2
	Unknown	3	2	-----	-----	-----	-----	-----	-----	-----	-----
Oakland.....	Total.....	641	421	101	61	41	-----	-----	4	-----	13
	Males.....	321	221	47	29	17	-----	-----	1	-----	6
	Females..	316	196	54	32	24	-----	-----	3	-----	7
	Unknown	4	4	-----	-----	-----	-----	-----	-----	-----	-----
Oceana.....	Total.....	275	177	50	29	17	1	-----	1	-----	-----
	Males.....	134	83	21	15	8	1	-----	1	-----	-----
	Females..	141	89	29	14	9	-----	-----	-----	-----	-----

<sup>a</sup> "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

		NATIVITY OF PARENTS OF CHILDREN BORN,—1878.									
COUNTIES.	Sex.	Children Born, 1878.					MOTHER UNK.		FATHER UNK.		Both Unknown.
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Ogemaw	Total.....	5		4							1
	Males.....	3		3							
	Females..	2		1							1
Ontonagon	Total.....	69	8	47	11	2					1
	Males.....	34	3	22	7	1					1
	Females..	35	5	25	4	1					
Osceola	Total.....	257	109	93	30	22			1		2
	Males.....	145	65	52	16	11					1
	Females..	111	43	41	14	11			1		1
	Unknown	1	1								
Otsego	Total.....	23	9	9	2	3					
	Males.....	14	7	4	1	2					
	Females..	9	2	5	1	1					
Ottawa	Total.....	869	356	339	92	45	3	11	3		10
	Males.....	423	176	167	49	19		7	1		4
	Females..	434	180	172	42	26	3	4	2		5
	Unknown	2			1						1
Presque Isle	Total.....	92	2	87	2	1					
	Males.....	45	1	42	1	1					
	Females..	47	1	45	1						
Roscommon	Total.....	5	3	1				1			
	Males.....	4	3					1			
	Females..	1		1							
Saginaw	Total.....	1,391	466	593	197	99	2	2	4	2	26
	Males.....	715	234	310	101	55	1	1	2		11
	Females..	676	232	283	96	44	1	1	2	2	15
Sanilac	Total.....	623	70	372	101	76			2	1	1
	Males.....	339	39	200	52	45			1	1	1
	Females..	283	31	171	49	31			1		
	Unknown	1		1							
Schoolcraft	Total.....	14	5	7	2						
	Males.....	6	2	3	1						
	Females..	8	3	4	1						
Shiawassee	Total.....	510	341	80	53	27	3	1	1	1	3
	Males.....	256	172	44	25	12	2		1		
	Females..	254	169	36	28	15	1	1		1	3

\* A "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

COUNTIES.	Sex.	Children Born, 1878.	NATIVITY OF PARENTS OF CHILDREN BORN,—1878.*								Both Unknown.
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
							Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
St. Clair.....	Total.....	977	243	436	156	123	2	5	5	4	3
	Males.....	522	138	226	77	72	2	3	4	-----	-----
	Females..	455	105	210	79	51	-----	2	1	4	3
St. Joseph.....	Total.....	489	366	67	29	17	-----	-----	5	-----	5
	Males.....	246	192	29	13	7	-----	-----	2	-----	3
	Females..	243	174	38	16	10	-----	-----	3	-----	2
Tuscola.....	Total.....	515	228	160	73	54	-----	1	-----	-----	1
	Males.....	262	115	79	40	27	-----	-----	-----	-----	1
	Females..	253	111	81	33	27	-----	1	-----	-----	-----
Van Buren.....	Total.....	616	472	43	53	35	3	1	6	-----	3
	Males.....	317	247	21	26	20	1	1	-----	-----	1
	Females..	298	225	22	27	15	1	-----	6	-----	2
	Unknown	1	-----	-----	-----	-----	1	-----	-----	-----	-----
Washtenaw.....	Total.....	589	279	169	85	30	10	2	5	-----	9
	Males.....	366	154	75	48	16	5	1	2	-----	5
	Females..	231	124	93	37	14	5	1	3	-----	4
	Unknown	2	1	1	-----	-----	-----	-----	-----	-----	-----
Wayne.....	Total.....	5,192	1,386	2,940	493	197	1	11	33	43	66
	Males.....	2,765	748	1,591	235	102	-----	6	17	18	46
	Females..	2,410	637	1,336	258	95	1	5	16	25	37
	Unknown	17	1	13	-----	-----	-----	-----	-----	-----	3
Wexford.....	Total.....	199	114	48	13	15	2	1	-----	2	4
	Males.....	95	60	19	5	8	-----	-----	-----	1	3
	Females..	101	53	28	8	7	2	1	-----	-----	2
	Unknown	3	1	1	-----	-----	-----	-----	-----	1	-----

\* "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

# BIRTHS OF TWINS, BY SEX.

39

## TWIN CHILDREN.

Four hundred and twenty-seven (427) pairs of twins were returned as having been born in Michigan in 1878. This is the largest number ever returned as having been born in this State, except for the year 1876. Among the twin children in 1878, there were more females than males, there being only 92 males to 100 females. The largest number of pairs of twins was returned for the month of August, the smallest for the month of November, as shown by Table IX.

TABLE IX.—*Exhibiting, by Sex, the Number of Pairs of Twins, and the Number of Twin Children Returned as having been Born in Michigan during the Year 1878, by Months Arranged in Order by Number; also, by Pairs and by Individuals, the Number of Males to 100 Females.*

YEAR AND MONTHS, 1878.		NUMBER OF TWIN CHILDREN, 1878.				NUMBER OF PAIRS OF TWINS, 1878.					
		Total.	Males.	Fe- males.	Males to 100 Fe- males.	Total.	Males.	Fe- males.	One of each Sex.	Males to 100 One of each Sex.	Males to 100 Fe- males.
Year, 1878.....		854	410	444	92	427	a 122	b 139	c 166	73	88
More than the Av. No. of Twins.	July.....	100	44	56	79	50	12	18	20	60	67
	April.....	83	43	39	110	41	10	8	23	43	125
	December.....	80	37	43	86	40	13	16	11	118	81
	August.....	76	39	38	100	38	11	11	16	69	100
	October.....	76	41	35	117	38	12	9	17	71	133
	March.....	74	31	43	72	37	9	15	13	69	60
Average per month.....		71.2	34.2	37.0	92	35.6	10.2	11.6	13.8	74	88
Less than the Av. No. of Twins.	May.....	68	34	34	100	34	9	9	16	56	100
	January.....	66	40	26	154	33	15	8	10	150	133
	June.....	63	34	28	121	31	10	7	14	71	143
	September.....	62	30	32	94	31	11	12	8	133	92
	February.....	56	19	37	51	28	5	14	9	56	36
	November.....	52	19	33	58	26	5	12	9	56	42

a 1 pair "Colored."

b 2 half-pairs sex unknown.

c 1 pair "Colored," and 1 pair "Europe."



Table X. affords evidence concerning the relative proportion of plurality births among the native and the foreign-born parents in Michigan in 1878. Of the total number of pairs of twins returned, 46.37 per cent. were born of parents who were both native-born, and 33.72 per cent. were born of parents who were both foreign-born. These proportions are nearly the same as those shown for total births in Table VII., page 29.

TABLE X.—*Parent-Nativity of Twins Returned as having been Born in Michigan during the Year 1878.*

NATIVITY OF PARENTS OF TWINS, 1878.	PAIRS OF TWINS, 1878.							
	NUMBER.				PER CENT. OF EACH PAR- ENT-NATIVITY TO TOTAL OF ALL NATIVITIES.			
	Total.	Males.	Fe- males.	One of Each Sex.	Total.	Males.	Fe- males.	One of Each Sex.
All Nativities.....	427	122	130	166	100.00	100.00	100.00	100.00
Both Native.....	198	57	61	80	46.37	46.72	43.96	46.19
Both Foreign.....	144	35	54	55	33.72	28.69	38.85	32.12
Foreign Father and Native Mother.....	42	10	15	17	9.84	8.20	10.79	10.24
Foreign Mother and Native Father.....	29	14	7	8	6.79	11.48	5.04	4.83
Unknown Mother, Father Native.....	4	2	1	1	.94	1.64	.72	.60
Unknown Mother, Father Foreign.....	4	2	-----	2	.94	1.64	-----	1.20
Unknown Father, Mother Native.....	2	1	-----	1	.47	.82	-----	.60
Unknown Father, Mother Foreign.....	-----	-----	-----	-----	-----	-----	-----	-----
Both Unknown.....	4	1	1	2	.94	.82	.72	1.20
One or Both Native.....	275	84	84	107	64.40	68.95	60.43	64.46
One or Both Foreign.....	219	61	76	93	51.29	50.00	54.06	49.49

EXHIBIT 5.—*By Nativity and by Color of Mothers, the Number and Proportion of Twins Returned as having been Born in Michigan during each of the Years 1876 to 1878, inclusive.*

NATIVITY AND COLOR OF MOTHERS OF TWINS.	1876.			1877.			1878.		
	Pairs of Twins.	Whole Number of Mothers, including those of Twins.	Per Ct. of Births of Twins to all Mothers.	Pairs of Twins.	Whole Number of Mothers, including those of Twins.	Per Ct. of Births of Twins to all Mothers.	Pairs of Twins.	Whole Number of Mothers, including those of Twins.	Per Ct. of Births of Twins to all Mothers.
Mothers of all Colors and of all Nationalities.....	428	33,791	1.27	367	33,028	1.11	427	34,729	1.23
All Native Mothers.....	249	19,086	1.30	207	18,891	1.10	242	20,143	1.26
All Foreign Mothers.....	170	13,679	1.24	150	13,449	1.12	173	13,857	1.25
Mothers of Unknown Nationalities.....	9	1,026	.88	10	688	1.45	12	729	1.65
White.....	424	33,273	1.27	360	32,445	1.11	420	34,290	1.22
Black.....	1	139	.72	1	101	.99	2	123	1.63
Mulatto.....		88			87		4	77	5.19
Indian.....	2	139	1.44	2	128	1.56	1	159	.63
Unknown.....	1	152	.66	4	267	1.50		80	
Black and Mulatto.....	1	227	.44	1	188	.53	6	200	3.00

TABLE XI.—*Parent-Nativity of Twins Returned as having been Born in Michigan during the Year 1878,—distinguishing between Parents who were Natives of the same State and those Born in Different States or Countries.*

NATIVITY OF PARENTS OF TWINS, 1878.	PAIRS OF TWINS, 1878.							
	NUMBER.				PER CENT. OF EACH PARENT-NATIVITY TO TOTAL OF ALL NATIVITIES.			
	Total.	Males.	Females.	One of Each Sex.	Total.	Males.	Females.	One of Each Sex.
All Nationalities.....	427	122	139	166	100.00	100.00	100.00	100.00
Same American State or Foreign Country.....	215	55	77	83	50.35	45.08	55.40	50.00
Different American States or Foreign Countries.....	127	37	38	52	29.74	30.33	27.34	31.33
Foreign Father and Native Mother.....	42	10	15	17	9.84	8.20	10.79	10.24
Foreign Mother and Native Father.....	29	14	7	8	6.79	11.48	5.04	4.82
Unknown Mother, Father Native.....	4	2	1	1	.94	1.64	.72	.60
Unknown Mother, Father Foreign.....	4	2		2	.94	1.64		1.20
Unknown Father, Mother Native.....	2	1		1	.47	.82		.60
Unknown Father, Mother Foreign.....								
Both Unknown.....	4	1	1	2	.94	.82	.72	1.20
Different States or Countries..... <sup>a</sup>	198	61	60	77	46.37	50.00	43.17	46.39

<sup>a</sup> Includes "Different American States or Foreign Countries," "Foreign Father and Native Mother," and "Foreign Mother and Native Father." Compare with "Same American State or Foreign Country," and with same lines in Table XV.,—for still-born children.

TABLE XII.—*Exhibiting, for the State and Counties, by Sex, the number of Pairs of Twins, the Number of Twin Children, and the Nativity of Parents of Twins Returned as having been Born in Michigan during the Year 1878. Nativity stated by Pairs of Twins.*

STATE AND COUNTIES.		SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878.*										
					NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
					Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
											Native.	Foreign.	Native.	Foreign.	
State	Total	854	427	93	105	122	22	42	29	4	4	2		4	
	Males	410	122	b 23	c 34	d 32	e 3	f 10	g 14	2	2	1		51	
	Females	444	139	i 32	j 29	k 45	9	15	7	1				1	
	One of each		166	m 38	n 42	o 45	10	p 17	d 8	1	h 2	1		2	
Allegan	Total	28	14	3	6	3			2						
	Males	9	2		1				1						
	Females	19	7	2	q 2	2			1						
	One of each		5	1	r 3	1									
Alpena	Total	8	4	1	1	1		1							
	Males	2													
	Females	6	2	1	1										
	One of each		2			1		1							
Baraga	Total	2	1			1									
	Males	1													
	Females	1													
	One of each		1			1									
Barry	Total	8	4	3	1										
	Males	6	2	2											
	Females	2													
	One of each		2	1	1										
Bay	Total	28	14			9	1	1	1		1			1	
	Males	11	4			3		e 1							
	Females	17	7			6	1								
	One of each		3					1			1			1	

\* See foot-note a to Table VIII.

b 3 males still-born, and 1 pair mulatto. c 4 pairs and 2 males still-born.

d 1 pair and 1 male still-born. e 1 male still-born.

f 1 pair and 2 males still-born, and 1 pair "Colored." g 3 pairs and 2 males still-born.

h 1 pair still-born. i 3 pairs and 2 females still-born, and 1/2 pair sex unknown.

j 2 pairs and 2 females still-born, 1/2 pair sex unknown, and 2 pairs mulatto.

k 1 pair and 1 female still-born. l 2 pairs still-born.

m 3 pairs, 1 male, and 1 female still-born, 1 pair mulatto, and 1 pair Indian.

n 2 pairs and 2 males still-born.

o 2 pairs, 1 male, and 1 female still-born, 1 pair "Europe," and 1 pair "Colored."

p 1 pair and 2 males still-born. q 1 female still-born, and 1 pair mulatto.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878. <sup>a</sup>										
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			FATHER.		MOTHER.		
										Native.	Foreign.	Native.	Foreign.	
Berrien	Total	14	7	1	3	1		2						
	Males	5	1		1									
	Females	9	3		1	1		1						
	One of each		3	1	1			1						
Branch	Total	8	4	1	2	1								
	Males	3	1		1									
	Females	5	2	1	1									
	One of each		1			1								
Calhoun	Total	24	12	4	3	3	1	1						
	Males	14	4		1	2		1						
	Females	10	2	1	1									
	One of each		6	3	1	1	1							
Cass	Total	18	9	2	4	2		1						
	Males	8	2		1	1								
	Females	10	3		2	1								
	One of each		4	2	1			1						
Charlevoix	Total	4	2					1						1
	Males	3	1					1						
	Females	1												
	One of each		1											1
Cheboygan	Females	2	1					1						
Chippewa	Females	4	2					1	1					
Clare	Total	2	1				1							
	Males	1												
	Females	1												
	One of each		1				1							
Clinton	Total	14	7	4	2	1								
	Males	7	3	2	1									
	Females	7	3	1	1	1								
	One of each		1	1										

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 pair still-born.<sup>c</sup> 1 pair "Europe."<sup>d</sup> 1/2 pair sex unknown.<sup>e</sup> 1 pair mulatto.<sup>f</sup> 1 male still-born.<sup>g</sup> 1 pair and 2 males still-born.



TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878.*										Both Unknown.
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.	Mother.	Native.	Foreign.	
Crawford.....	Males.....	2	1		b 1									
Delta.....	Females.....	2	1	1										
	Total.....	16	8	2	5								1	
Eaton.....	Males.....	11	4		3								1	
	Females.....	5	1	1										
	One of each.....		3	1	2									
	Total.....	30	15	6	4			1	3	1				
Genesee.....	Males.....	18	7	1	2				c 3	1				
	Females.....	12	4	d 3				1						
	One of each.....		4	2	e 2									
	Total.....	4	2	1			1							
Gladwin.....	Males.....	3	1	1										
	Females.....	1												
	One of each.....		1				1							
	Total.....	6	3	2		1								
Grand Traverse.....	Males.....	2												
	Females.....	4	1			1								
	One of each.....		2	2										
	Total.....	14	7	2	3		1	1						
Gratiot.....	Males.....	7	3	b 1	c 2									
	Females.....	7	3		1		1	d 1						
	One of each.....		1	1										
	Total.....	24	12	6	6									
Hillsdale.....	Males.....	14	6	3	3									
	Females.....	10	4	3	1									
	One of each.....		2		2									
	Total.....	12	6			5	1							
Houghton.....	Males.....	6	2			1	1							
	Females.....	6	2			2								
	One of each.....		2			2								

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 male still-born.<sup>c</sup> 2 pairs still-born.<sup>d</sup> 1 female still-born.<sup>e</sup> 1 pair still-born.



TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878. <sup>a</sup>										
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
										Native.	Foreign.	Native.	Foreign.	
Huron	Total.....	12	6		1	1		1	1	2				
	Males.....	6	2		1					1				
	Females.....	6	2			1		1						
	One of each.....		2						1	1				
Ingham	Total.....	14	7	3	1	1			1			1		
	Males.....	7	1		1									
	Females.....	7	1	1										
	One of each.....		5	2		<sup>b</sup> 1			1			1		
Ionia	Total.....	18	9		1	4		2	1	1				
	Males.....	8	2			1			1					
	Females.....	10	3		1	1				1				
	One of each.....		4			2		2						
Iosco	Total.....	4	2			2								
	Males.....	3	1			1								
	Females.....	1												
	One of each.....		1			1								
Isabella	Total.....	14	7	2	4	1								
	Males.....	6	1			1								
	Females.....	8	2		2									
	One of each.....		4	2	2									
Jackson	Total.....	16	8	2	3	2			1					
	Males.....	8	2	<sup>b</sup> 1					<sup>d</sup> 1					
	Females.....	8	2		<sup>d</sup> 1	1								
	One of each.....		4	1	<sup>d</sup> 2	1								
Kalamazoo	Total.....	14	7	2	3			1				1		
	Males.....	10	4	1	1			1				1		
	Females.....	4	1	1										
	One of each.....		2		2									
Kalkaska	Total.....	4	2	1				1						
	Males.....	2	1	1										
	Females.....	2	1					1						

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 male still-born.<sup>c</sup> 1 pair "Indian."<sup>d</sup> 1 pair still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878. a												Both Unknown.
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.				
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.				
										Native.	Foreign.	Native.	Foreign.			
Kent	Total.....	42	21	5	4	9	.....	1	.....	.....	.....	.....	.....	2		
	Males.....	18	4	.....	1	2	.....	.....	.....	.....	.....	.....	.....	b1		
	Females.....	24	7	2	1	3	.....	.....	.....	.....	.....	.....	.....	1		
	One of each.....	.....	10	3	2	4	.....	1	.....	.....	.....	.....	.....	.....		
Keweenaw	Total.....	4	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....		
	Males.....	3	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....		
	Females.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Lake	Total.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....		
	Males.....	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Females.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Lapeer	Total.....	8	4	1	1	1	1	.....	.....	.....	.....	.....	.....	.....		
	Males.....	4	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Females.....	4	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....		
	One of each.....	.....	2	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....		
Leelanaw	Total.....	2	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....		
	Males.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Females.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Lenawee	Total.....	12	6	1	3	2	.....	.....	.....	.....	.....	.....	.....	.....		
	Males.....	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Females.....	10	5	1	2	2	.....	.....	.....	.....	.....	.....	.....	.....		
Livingston	Total.....	8	4	.....	2	1	.....	1	.....	.....	.....	.....	.....	.....		
	Males.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Females.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Macomb	Total.....	10	5	1	1	2	.....	1	.....	.....	.....	.....	.....	.....		
	Males.....	4	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....		
	Females.....	6	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Manistee	Total.....	12	6	1	.....	4	1	.....	.....	.....	.....	.....	.....	.....		
	Males.....	9	3	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....		
	Females.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Total.....	.....	3	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....		
	Males.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Females.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 pair still-born.<sup>c</sup> 1 male still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878, <sup>a</sup>										Both Unknown.
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
										Native.	Foreign.	Native.	Foreign.	
Marquette	Total	14	7			6	1							
	Males	7	2			1	1							
	Females	7	2			2								
	One of each		3			3								
Mason	Females	2	1			1								
Mecosta	Total	8	4	1	1	1			1					
	Males	3	1	b 1										
	Females	5	2		1	1								
	One of each		1						1					
Missaukee	Females	2	1				1							
Monroe	Total	12	6	2	2	1			1					
	Males	5	2		1				1					
	Females	7	3	c 2		1								
	One of each		1		1									
Montcalm	Total	30	15	2	5	4	1	2			1			
	Males	19	7		e 3	2		1			1			
	Females	11	3			1	1	1						
	One of each		5	2	2	1								
Muskegon	Total	14	7	2	2	2			1					
	Males	9	3	1	1	c 1								
	Females	5	1						1					
	One of each		3	1	1	1								
Newaygo	Females	2	1	1										
Oakland	Total	10	5	2	2	1								
	Males	5	1	1										
	Females	5	1		1									
	One of each		3	1	1	1								
Oceana	Total	12	6	1	3		1	1						
	Males	5	1		1									
	Females	7	2				1	1						
	One of each		3	1	2									
Ontonagon	Females	4	2			e 1	1							

<sup>a</sup> See foot-note to Table VIII.<sup>b</sup> 1 pair mulatto.<sup>c</sup> 1 pair still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878. <sup>a</sup>									
				NATIVE.		FOREIGN.				MOTHER UNK.		FATHER UNK.	
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	FATHER.		MOTHER.	
										Native.	Foreign.	Native.	Foreign.
Oscoda	Total	6	3		1	1			1				
	Males	4	2		1				1				
	Females	2	1			1							
Ottawa	Total	26	13	2	3	5		3					
	Males	11	3			1		2					
	Females	15	5		1	4							
	One of each		5	2	2			1					
Saginaw	Total	38	19	2	1	7	2	4	3				
	Males	18	7	1	1	3			2				
	Females	20	8	1		2	1	3	1				
	One of each		4			4	2	1	1				
Sanilac	Total	16	8	1		2	3	1	2				
	Males	8	2			1			1				
	Females	8	2	1			1						
	One of each		4			1	1	1	1				
Shiawassee	Total	20	10	3	2	3		1	1				
	Males	9	3	2		1							
	Females	11	4		4	1	1	1	1				
	One of each		3	1	1	1							
St. Clair	Total	26	13	1		5	1	4	2				
	Males	15	4			3		1					
	Females	11	2			1			1				
	One of each		7	1		1	1	3	1				
St. Joseph	Total	8	4		3	1							
	Males	3											
	Females	5	1		1								
	One of each		3		2	1							
Tuscola	Total	10	5	1	3	1							
	Males	7	3		2	1							
	Females	3	1	1									
	One of each		1		1								

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>c</sup> 1 male still-born.<sup>c</sup> 1 female still-born.<sup>b</sup> 1 pair black, and 1 male still-born.<sup>d</sup> 1 pair still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1878. <sup>a</sup>											
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.	
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			FATHER.		MOTHER.			
										Native.	Foreign.	Native.	Foreign.		
Van Buren	Total.....	18	9	2	5			12							
	Males.....	7	3		1			12							
	Females.....	11	5	2	3										
	One of each.....		1		1										
Washtenaw	Total.....	12	6		1	4			1						
	Males.....	8	2			1			1						
	Females.....	4													
	One of each.....		4		1	b 3									
Wayne	Total.....	86	43	11	2	16	3	6	4		1				
	Males.....	34	6	3		2			e 1						
	Females.....	52	15	d 4	1	6	1	d 3							
	One of each.....		22	d 4	1	8	2	f 3	f 3		d 1				
Wexford	Total.....	8	4		3										
	Males.....	3													
	Females.....	5	1		e 1										
	One of each.....		3	h 1	2										

- <sup>a</sup> See foot-note <sup>a</sup> to Table VIII.  
<sup>b</sup> 1 pair and 1 female still-born.  
<sup>c</sup> 1 male still-born.  
<sup>d</sup> 1 pair still-born.  
<sup>e</sup> 1 pair Black.  
<sup>f</sup> 1 pair and 1 male still-born.  
<sup>g</sup>  $\frac{3}{4}$  pair still-born, sex unknown.  
<sup>h</sup> 1 female still-born.



TABLE XIII.—*Occupations of Fathers of Twins Born in Michigan during the Year 1878, according to the Returns.*

OCCUPATIONS.	Number of Each.	OCCUPATIONS.	Number of Each.
ALL OCCUPATIONS.....	427	Jailors.....	1
Artists.....	1	Laborers.....	56
Barbers.....	1	Lawyers.....	1
Blacksmiths.....	10	Lumbermen.....	2
Boatmen.....	1	Machinists.....	5
Boiler-makers.....	1	Manufacturers.....	1
Book-keepers.....	1	Masons.....	2
Brewers.....	1	Mechanics.....	5
Brick-makers.....	1	Merchants.....	7
Butchers.....	3	Mill-wrights.....	1
Cabinet-makers.....	1	Mine Captains.....	1
Carpenters.....	12	Miners.....	9
Carriage-makers.....	1	Ministers.....	3
Cigar-makers.....	1	Miscellaneous.....	1
Civil Engineers.....	1	Painters.....	4
Clerks.....	2	Photographers.....	1
Conductors.....	1	Physicians.....	2
Contractors.....	1	Policemen.....	2
Coopers.....	1	R. R. Clerks.....	1
Copper-washers.....	1	R. R. Laborers.....	1
Draymen.....	1	R. R. Section Bosses.....	1
Druggists.....	1	Sailors.....	2
Engineers.....	2	Salesmen.....	3
Farmers.....	228	Saloon-keepers.....	2
Firemen.....	1	Sawyers.....	2
Fruit-growers.....	1	Ship-carpenters.....	3
Furniture Dealers.....	1	Shoemakers.....	4
Gardeners.....	3	Stewards.....	1
Grocers.....	4	Stone-masons.....	1
Hackmen.....	1	Store-keepers.....	1
Harness-makers.....	1	Teamsters.....	6
Ice-peddlers.....	1	Unknown.....	2
Iron-moulders.....	1	Veterinary Surgeons.....	1
Iron-rollers.....	1	Wagon-makers.....	2
		Waiters.....	1

## TRIPLET CHILDREN, 1878.

Three sets of triplets were returned for the year 1878. Table XIX. contains certain details concerning the triplet children returned as having been born in this State in 1878. Seven of the nine triplet children were males and two were females.

TABLE XIX.—*Exhibiting certain Details concerning Triplet Children Returned as having been born in Michigan during the Year 1878.*

COUNTIES.	TRIPLET CHILDREN, 1878.				PARENTS OF TRIPLETS, 1878.		
	Month of Birth, 1878.	Color.	SEX.		Birthplace of Father.	Birthplace of Mother.	Occupation of Father.
			Males.	Fe-males.			
Chippewa.....	Nov.....	White...	3	.....	Canada....	Canada....	Farmer...
Ingham.....	Oct.....	White...	1	2	New York.	Michigan..	Farmer....
Washtenaw.....	Oct.....	White...	3	.....	Ohio.....	Michigan..	Farmer....

## STILL-BIRTHS.

During the year 1878, according to the returns of births and deaths, there were 793 still-born children born in Michigan,—the largest number ever returned to the State Department. There has been a constant increase in the number each year. In 1878, 2.26 per cent. of all the children returned were still-born, and 2.20 per cent. of all the mothers who bore children in 1878 bore still-born children, as shown in Exhibit 6.

Exhibit 7 shows, by nativity and color, what proportion of the mothers bore still-born children during each of the years 1872-1878, and it may be seen that the proportion of still-births among the foreign-born mothers is very much greater than among the native-born, and very much greater among the Mulatto mothers than among those of any other color.



EXHIBIT 6.—*The Relation of Still-born Children to all Children Returned as having been Born in Michigan during the several Years 1873 to 1878, inclusive, and of the Mothers of Still-born Children to all Mothers Returned as having Borne Children during each of the Years 1873 to 1878, inclusive.*

CHILDREN AND MOTHERS.	TOTAL BIRTHS AND STILL-BIRTHS.					
	1873.	1874.	1875.	1876.	1877.	1878.
All Children born.....	34,608	31,151	31,958	34,235	33,395	35,162
Still-born Children.....	a 348	464	629	646	720	793
Per Cent. of Still-born to Total.....	1.01	1.49	1.97	1.89	2.15	2.26
All Mothers.....	34,180	30,739	31,586	33,791	33,028	34,729
Mothers of Still-born Children.....	a 333	454	613	620	697	765
Per Cent. of Mothers of Still-born Children to All Mothers.....	.97	1.48	1.94	1.83	2.11	2.20

a As per returns of births.

EXHIBIT 7.—*By Nativity and Color, the Number and Proportion of Mothers having Still-births in Michigan during each of the Years 1876—1878, inclusive, according to the Returns.*

NATIVITY AND COLOR OF MOTHERS.	1876.			1877.			1878.		
	Moth- ers hav- ing Still- births.	Whole No. of Moth'rs. Includ- ing those of Still- births.	Per Cent. of Mothers of Still- births to all Moth'rs.	Moth- ers hav- ing Still- births.	Whole No. of Moth'rs. Includ- ing those of Still- births.	Per Cent. of Mothers of Still- births to all Moth'rs.	Moth- ers hav- ing Still- births.	Whole No. of Moth'rs. Includ- ing those of Still- births.	Per Cent. of Mothers of Still- births to all Moth'rs.
Mothers of all colors and all nativities.....	620	33,791	1.83	697	33,028	2.11	765	34,729	2.20
All native mothers.....	277	19,086	1.45	337	18,891	1.78	358	20,143	1.78
All foreign mothers.....	268	13,679	1.96	286	13,449	2.12	321	13,857	2.32
Mothers of unknown nativities...	75	1,026	7.31	74	688	10.76	86	729	11.80
White.....	595	33,273	1.79	677	32,445	2.08	747	34,290	2.18
Black.....	7	139	5.04	1	101	.99	3	123	2.44
Mulatto.....	2	88	2.27	3	87	3.45	4	77	5.19
Indian.....	2	139	1.44	4	128	3.13	-----	159	-----
Unknown.....	14	152	9.21	12	267	4.49	11	80	13.75
Black and Mulatto.....	9	227	3.96	4	188	2.13	7	200	3.50

—Exhibiting, by Sex, the Parent-Nativity, and by Sex and by Months, the Number of Still-births Returned as having Occurred in Michigan during the Year 1878.

SEX.	YEAR, 1878.	MONTHS, 1878.												NATIVITY OF PARENTS OF STILL-BIRTHS, 1878.																	
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	PARENTS BORN IN MICHIGAN.		NATIVE.				FOREIGN.				FOREIGN FATHER AND Na- tive Mother.		FOREIGN FATHER AND Na- tive Father.		MOTHER UNEK.		FATHER UNEK.	
														Father.	Mother.	Total.	Same State.	Different States.	Unknown.	Total.	Same Country.	Different Coun- tries.	Unknown.	Foreign live Mother.	Foreign live Father.	Native.	Foreign.	Mother.	Native.		
Total.....	a 733	52	54	54	75	69	57	64	60	61	67	63	117	176	204	313	165	147	1	288	252	31	5	59	37	5	6	4	4	77	8
Males.....	b 444	34	27	23	44	41	33	38	34	36	35	35	64	95	108	175	82	93	....	164	144	17	3	31	23	4	4	1	3	439	
Females..	c 307	14	24	29	25	28	22	25	25	21	26	26	44	77	92	127	76	51	....	105	91	12	2	26	14	...	2	2	1	30	
Unknown	d 42	4	3	2	6	2	2	1	1	4	6	2	9	4	4	11	7	3	1	19	17	2	...	2	....	1	....	1	....	8	

a 10 pairs and 11 half pairs male twins, 8 pairs and 5 half pairs female twins, 4 pair twins unknown sex, 10 pairs twins unknown sex, one of each sex, and 7 male and 2 female twins.

b 2 Black, 1 Mulatto, and 1 color unknown.

c 3 "Europe,"

d 1 mother, "America."

e 1 Black and 3 Mulatto.

f 2 "Europe."

g 10 color unknown.

h "United States."

TABLE XV.—*Parent-Nativity of Still-born Children,—Exhibiting, by Sex, the Number and Per Cent. of Total Number Returned as having been Born in Michigan during the Year 1878, of Parents who were Natives of the Same and of Different States or Countries.*

NATIVITY OF PARENTS OF STILL-BORN CHILDREN, 1878.	STILL-BORN CHILDREN, 1878.							
	NUMBER.				PR. CT. OF EACH PARENT-NATIVITY TO TOTAL OF ALL NATIVITIES.			
	Total.	Males.	Females.	Un-known.	Total.	Males.	Females.	Un-known.
All Nativities.....	793	444	307	42	100.00	100.00	100.00	100.00
Same American State or Foreign Country..... <sup>a</sup>	423	229	169	25	53.34	51.58	55.05	59.52
Different American States or Foreign Countries.....	178	110	63	5	22.45	24.77	20.52	11.90
Foreign Father and Native Mother.....	59	31	26	2	7.44	6.98	8.47	4.76
Foreign Mother and Native Father.....	37	23	14	-----	4.67	5.18	4.56	-----
Unknown Mother, Father Native.....	5	4	-----	1	.63	.90	-----	2.38
Unknown Mother, Father Foreign.....	6	4	2	-----	.76	.90	.65	-----
Unknown Father, Mother Native.....	4	1	2	1	.50	.23	.63	2.38
Unknown Father, Mother Foreign.....	4	3	1	-----	.50	.68	.33	-----
Both unknown.....	77	39	30	8	9.71	8.78	9.77	19.05
Different States or Countries..... <sup>b</sup>	274	164	103	7	34.55	36.94	33.55	16.67
Native.....	313	175	127	11	39.47	39.41	41.37	28.19
Foreign.....	238	164	103	19	30.32	36.94	34.20	45.24

<sup>a</sup> 1 Unknown sex "United States," and 3 males and 2 females "Europe."

<sup>b</sup> Compare with same statement for twins in Table XI., page 41.



## BIRTHS OF STILL-BORN CHILDREN.

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EXHIBIT 11.—Occupations of Fathers of Still-born Children in Michigan in 1878, according to the Returns.

FATHERS.		CHILDREN.			FATHERS.		CHILDREN.		
OCCUPATIONS.	Males.	Fe- males.	Unk.		OCCUPATIONS.	Males.	Fe- males.	Unk.	
Accountants.....			1		Lumbermen.....	3	3		
Agents.....	1				Machinists.....	5			
Auctioneers.....	1				Manufacturers.....	1			
Baggagemen.....		1			Masons.....	1			
Barbers.....	1				Mechanics.....	3	5		
Bar-tenders.....		1			Merchants.....	6	7	1	
Basket-makers.....		1			Millers.....	2			
Blacksmiths.....	6	4			Mill Men.....		1		
Boarding-house keepers.....	1				Milk Dealers.....	1			
Book-keepers.....	1	4			Miners.....	21	12	1	
Brewers.....			1		Moulders.....	3			
Butchers.....	2	2	2		Painters.....	1	3		
Cabinet-makers.....	1	1			Patent-right Agents.....			1	
Carpenters.....	11	4	3		Pattern Fitters.....	1			
Carpenters and Joiners.....	1				"Peanut Stand".....	1			
Carriage Manufacturers.....		1	1		Peddlers.....	1	2		
Carriage-trimmers.....	1				Pensioners.....	1			
Choppers.....		1			Physicians.....	3	1		
Cigar-makers.....	2	1			Plasterers.....	1			
Clerks.....	8	2			Policemen.....	1			
Commercial Agents.....	1				Politicians.....	1			
Cooks.....	1	2			Printers.....	2			
Coopers.....		2	2		R. R. Agents.....	1	2		
Deputy Treas. D. L. & N. R. R.....	1				R. R. Clerks.....	1			
Doctors of Divinity.....	1				R. R. Employes.....		2		
Draymen.....	1	1			R. R. Laborers.....	1			
Engineers.....	3				River Men.....	1			
Factory-hand.....	1				Sailors.....		4		
Farmers.....	195	125	8		Saloon-keepers.....	3			
Farm Laborers.....	1	1			Sculptors.....	1			
Finishers.....			1		"Second-hand Furniture".....	1	1		
Firemen in Mill.....		1			Shingle Dealers.....		1		
Firemen.....		1			Ship-builders.....	2			
Fishermen.....	1				Shoe-makers.....	1	2		
Foremen.....	1	1			Smelters.....	1			
Gardeners.....	1	1			Station Agents.....		1		
Grocers.....	2				Tanners.....	1			
Harness-makers.....	1				Teachers.....	4			
Hotel-keepers.....		2			Teamsters.....	3	3		
Insurance Agents.....		2			Tinsmiths.....	1	1		
Jewelers.....	1				Unknown.....	37	29	8	
Joiners.....		1			Upholsterers.....	1			
Laborers.....	74	61	8		Wagon-makers.....	2	1		
Laborers in Mill.....		1			Walters.....	1			
Livery-keepers.....		1			Watchmen.....			1	
Log-drivers.....		1							

## ILLEGITIMATE CHILDREN.

The number of illegitimate children returned as having been born in Michigan in 1878 is the smallest number returned for any of the years 1873-1878, except for the year 1875, as shown by Exhibit 8. There were doubtless more omitted in the enumeration than usual, as explained in foot-note \* to Exhibit 8, (which see); but if these 70, in the ninth ward of Detroit city, are added to the number returned, there would be only two years (1873 and 1877) for which a larger number of illegitimate births would appear in the exhibit. The proportion of all children born in 1878 who were illegitimate was smaller than in any of the previous years 1868-1877. In 1878 there was one illegitimate birth returned for about every 175 children born.

EXHIBIT 8.—*The Relation of the Illegitimate Children to All Children Returned as having been Born during the several Years 1873 to 1878, inclusive, and of Mothers of Illegitimates to All Mothers Returned as having Borne Children in Michigan during each of the Years 1873 to 1878, inclusive.*

CHILDREN AND MOTHERS.	TOTAL BIRTHS AND ILLEGITIMATES.					
	1873.	1874.	1875.	1876.	1877.	1878.
All Children born.....	34,608	31,151	31,958	34,235	33,395	35,162
Illegitimate Children.....	316	236	193	266	316	<sup>a</sup> 202
Per Cent. of Illegitimates to Total.....	.91	.76	.60	.78	.95	.57
All Mothers.....	34,180	30,739	31,586	33,791	33,028	34,729
Mothers of Illegitimate Children.....	314	236	192	262	312	<sup>a</sup> 202
Per Cent. of Mothers of Illegitimates to All Mothers.....	.92	.77	.61	.78	.94	.58

\* The number of illegitimates returned for Wayne county for 1878 is probably too small by about 70 births. Heretofore the children born in the "Foundlings' Home," in the ninth ward of Detroit, have generally been returned as illegitimate; but we are unable to get any such statement for 1880, although there is no doubt that those children whose fathers' names are reported as "Unknown" (the mothers' names being given), in the said ninth ward, are illegitimate.



**EXHIBIT 9.**—*By Nativity and Color, the Number and Proportion of Mothers of Illegitimate Children Returned as having been Born in Michigan during each of the Years 1876 to 1878, inclusive.*

NATIVITY AND COLOR OF MOTHERS.	1876.			1877.			1878.		
	Mothers having illegiti- mates.	Whole No. of Mothers including those of illegiti- mates.	Per Ct. of Mothers of illegiti- mates to all Moth'rs.	Mothers having illegiti- mates.	Whole No. of Mothers including those of illegiti- mates.	Per Ct. of Mothers of illegiti- mates to all Moth'rs.	Mothers having illegiti- mates.	Whole No. of Mothers including those of illegiti- mates.	Per Ct. of Mothers of illegiti- mates to all Moth'rs.
Mothers of all colors and all nat- ivities.....	262	33,791	.73	312	33,028	.94	202	34,729	.58
All Native Mothers.....	170	19,086	.89	160	18,891	.85	114	20,443	.57
All Foreign Mothers.....	53	13,679	.39	79	13,449	.59	34	13,837	.25
Mothers of unknown nativities.	39	1,026	3.80	73	688	10.61	54	729	7.41
White.....	243	33,273	.73	286	32,445	.88	179	34,290	.52
Black.....	3	139	2.16	6	101	5.94	7	123	5.69
Mulatto.....	7	88	7.95	4	87	4.60	3	77	3.90
Indian.....	9	139	6.47	15	128	11.72	11	159	6.92
Unknown.....	—	152	—	1	267	.37	2	80	2.50
Black and Mulatto.....	10	227	4.41	10	188	5.32	10	200	5.00

\* See foot-note \* to Exhibit 8, page 56.

**TABLE XVIII.**—*Exhibiting the Number of Males to 100 Females, and by Sex, the Number and Per Cent. of Total Number of Illegitimate Children Born of Native and of Foreign-born Parents, in Michigan, during the Year 1878.*

NATIVITY OF PARENTS OF ILLEGITIMATE CHILDREN, 1878.		ILLEGITIMATE CHILDREN, 1878.								
		Number of Males to 100 Fe- males.	NUMBER.				PER CENT. OF TOTAL.			
			Total.	Males.	Fe- males.	Unk.	Total.	Males.	Fe- males.	Unk.
All Nativities.....		116	202	108	93	1	100.00	100.00	100.00	100.00
Mothers.....	{ Native.....	126	114	63	50	1	56.44	58.33	53.76	100.00
	{ Foreign.....	55	34	12	22	-----	16.83	11.11	23.66	-----
	{ Unknown..	157	54	33	21	-----	26.73	30.56	22.58	-----
Fathers.....	{ Native.....	173	30	19	11	-----	14.85	17.59	11.83	-----
	{ Foreign.....	183	17	11	6	-----	8.42	10.19	6.45	-----
	{ Unknown..	103	155	78	76	1	76.73	72.22	81.72	100.00

TABLE XVI.—*Exhibiting, by Sex, the Total Number, Number by Months, and the Nativity of Parents of Illegitimate Children Born in Michigan, during the Year ending December 31, 1878, according to the Returns.*

SEX.	YEAR, 1878.	MONTHS, 1878.												NATIVITY OF MOTHERS OF ILLEGITIMATE CHILDREN, 1878.						NATIVITY OF FATHERS OF ILLEGITIMATE CHILDREN, 1878.							
														NATIVE.			FOREIGN.			NATIVE.			FOREIGN.				
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Born in Michigan.	Born in Other States.	Total.	Born in Canada.	Born in Other Countries.	Unknown.	Total.	Born in Michigan.	Born in Other States.	Total.	Born in Canada.	Born in Other Countries.	Unknown.
Total.....	a 202	9	20	16	20	17	20	16	13	8	15	25	23	114	78	36	34	11	23	54	30	18	12	17	5	12	105
Males.....	b 108	5	9	10	8	10	11	12	8	3	6	13	13	63	41	22	12	5	7	33	19	11	8	11	5	6	78
Females.....	c 93	4	11	6	12	7	9	4	5	5	9	12	9	50	36	14	22	6	16	21	11	7	4	6	.....	6	76
Unknown.....	f 1												1	1	1	1											1

<sup>a</sup> See foot-note a to Exhibit 8, page 56.

<sup>b</sup> 3 Black, 2 Mulatto, 3 Indian, 1 "Half-breed," 1 "Half-Indian," 1 color unknown; 1 half-pair twins, one of each sex, and 4 still-born.

<sup>c</sup> 8 "America."

<sup>d</sup> 4 Black, 1 Mulatto, 2 Indian, and 4 "Half-breed," 1 half-pair twins, one of each sex, and 7 still-born.

<sup>e</sup> 5 "America."

<sup>f</sup> Unknown color, still-born.



EXHIBIT 11.—*Occupations of Fathers of Still-born Children in Michigan in 1878, according to the Returns.*

FATHERS.				FATHERS.			
CHILDREN.		CHILDREN.		CHILDREN.		CHILDREN.	
OCCUPATIONS.	Males.	Fe- males.	Unk.	OCCUPATIONS.	Males.	Fe- males.	Unk.
Accountants.....			1	Lumbermen.....	3	3	
Agents.....	1			Machinists.....	5		
Auctioneers.....	1			Manufacturers.....	1		
Baggagemen.....		1		Masons.....	1		
Barbers.....	1			Mechanics.....	3	5	
Bar-tenders.....		1		Merchants.....	6	7	1
Basket-makers.....		1		Millers.....	2		
Blacksmiths.....	6	4		Mill Men.....		1	
Boarding-house keepers.....	1			Milk Dealers.....	1		
Book-keepers.....	1	4		Miners.....	21	12	1
Brewers.....			1	Moulders.....	3		
Butchers.....	2	2	2	Painters.....	1	3	
Cabinet-makers.....	1	1		Patent-right Agents.....			1
Carpenters.....	11	4	3	Pattern Fitters.....	1		
Carpenters and Joiners.....	1			"Peanut Stand".....	1		
Carriage Manufacturers.....		1	1	Peddlers.....	1	2	
Carriage-trimmers.....	1			Pensioners.....	1		
Choppers.....		1		Physicians.....	3	1	
Cigar-makers.....	2	1		Plasterers.....	1		
Clerks.....	8	2		Police-men.....	1		
Commercial Agents.....	1			Politicians.....	1		
Cooks.....	1	2		Printers.....	2		
Coopers.....		2	2	R. R. Agents.....	1	2	
Deputy Treas. D. L. & N. R. R.....	1			R. R. Clerks.....	1		
Doctors of Divinity.....	1			R. R. Employes.....		2	
Draymen.....	1	1		R. R. Laborers.....	1		
Engineers.....	3			River Men.....	1		
Factory-hand.....	1			Sailors.....		4	
Farmers.....	195	125	8	Saloon-keepers.....	3		
Farm Laborers.....	1	1		Sculptors.....	1		
Finishers.....			1	"Second-hand Furniture".....	1	1	
Firemen in Mill.....		1		Shingle Dealers.....		1	
Firemen.....		1		Ship-builders.....	2		
Fishermen.....	1			Shoe-makers.....	1	2	
Foremen.....	1	1		Smelters.....	1		
Gardeners.....	1	1		Station Agents.....		1	
Grocers.....	2			Tanners.....	1		
Harness-makers.....	1			Teachers.....	4		
Hotel-keepers.....		2		Teamsters.....	3	3	
Insurance Agents.....		2		Tinsmiths.....	1	1	
Jewelers.....	1			Unknown.....	37	29	8
Joiners.....		1		Upholsterers.....	1		
Laborers.....	74	61	8	Wagon-makers.....	2	1	
Laborers in Mill.....		1		Walters.....	1		
Livery-keepers.....		1		Watchmen.....			1
Log-drivers.....		1					



TABLE XX.—*Exhibiting the Number of Males to 100 Females among Twin Children, and the Number of Illegitimate and Still-born Children Returned as having been born in Michigan during the Year 1878.*

STATE AND COUNTIES.	Twin Children,— Number of Males to 100 Females.	Number of Illegiti- mate Chil- dren born in 1878.	Number of Still- births in 1878.	COUNTIES.	Twin Chil- dren,— Number of Males to 100 Females.	Number of Illegiti- mate Chil- dren born in 1878.	Number of Still- births in 1878.
State.....	92	202	793	Kent.....	75	7	35
Alcona.....				Keweenaw.....	300	1	23
Allegan.....	47	3	14	Lake.....	b	1	3
Alpena.....	33		7	Lapeer.....	100	3	6
Baraga.....	100	2		Leelanaw.....	100	1	1
Barry.....	300	1	7	Lenawee.....	20	1	19
Bay.....	65	3	13	Livingston.....	100	1	3
Benzie.....			1	Macomb.....	67		11
Berrien.....	56	3	13	Manistee.....	300	1	9
Branch.....	60	3	10	Marquette.....	100	3	17
Calhoun.....	140	2	17	Mason.....	a		5
Cass.....	80	6	11	Mecosta.....	60	1	5
Charlevoix.....	300		1	Menominee.....			3
Cheboygan.....	a		1	Midland.....			5
Chippewa.....	a	6		Missaukee.....	a		1
Clare.....	100	1	2	Monroe.....	71	3	29
Clinton.....	100	5	21	Montcalm.....	173	3	12
Crawford.....	b		1	Muskegon.....	180	6	12
Delta.....	a		1	Newaygo.....	a	1	5
Eaton.....	220	2	14	Oakland.....	100	8	9
Emmet.....		2		Oceana.....	71	1	2
Genesee.....	150	5	21	Ontonagon.....	a		5
Gladwin.....	300			Osceola.....	200		12
Grand Traverse..	50	1	4	Ottawa.....	73	4	33
Gratiot.....	100	4	12	Presque Isle.....			2
Hillsdale.....	140		11	Saginaw.....	90	3	26
Houghton.....	100	5	23	Sanilac.....	100	3	5
Huron.....	100	1	6	Shlawassee.....	82	4	7
Ingham.....	100	2	4	St. Clair.....	136	9	20
Ionia.....	80	5	13	St. Joseph.....	60	5	11
Iosco.....	300		1	Tuscola.....	233	1	14
Isabella.....	75	2	11	Van Buren.....	64	6	10
Jackson.....	100	2	17	Washtenaw.....	200	8	18
Kalamazoo.....	250	6	13	Wayne.....	65	c 44	130
Kalkaska.....	100			Wexford.....	60	1	15

a No males.

b No females.

c See foot-note a to Exhibit 8, page 56.

Exhibit 10 shows that there were twenty-two townships in this State in 1878, in which it is reported that there were no births. These townships represented in 1874, so far as can be ascertained, a population of 6,522.

EXHIBIT 10.—*Townships in which it is Reported that there were No Births in 1878.*

COUNTIES.	TOWNSHIPS,—NO BIRTHS IN 1878.	POPULATION IN 1874.		
		Total.	Males.	Females.
Total.....	.....	6,522	3,682	2,840
Alpena.....	Ossineke.....	110	78	32
Bay.....	Badger.....	4,892	2,677	2,215
Benzie.....	Gilmore.....	504	272	232
Clare.....	Hayes..... <sup>a</sup>	.....	.....	.....
Crawford..... <sup>a</sup>	{ Frederick..... <sup>a</sup>	.....	.....	.....
	{ Grayling..... <sup>a</sup>	.....	.....	.....
	{ South Branch..... <sup>a</sup>	.....	.....	.....
Iosco.....	Plainfield.....	119	71	48
Isabella.....	Gilmore.....	115	63	49
Lake.....	Eden..... <sup>a</sup>	.....	.....	.....
Missaukee.....	Pioneer.....	60	40	20
Muskegon.....	Blue Lake.....	297	180	117
Ogemaw..... <sup>a</sup>	{ Cummings..... <sup>a</sup>	.....	.....	.....
	{ Ogemaw..... <sup>b</sup>	149	99	50
	{ Rose..... <sup>a</sup>	.....	.....	.....
Ontonagon.....	Carp Lake.....	76	52	24
Otsego..... <sup>a</sup>	{ Charlton..... <sup>a</sup>	.....	.....	.....
	{ Elmira..... <sup>a</sup>	.....	.....	.....
	{ Corwith..... <sup>a</sup>	.....	.....	.....
	{ Dover..... <sup>a</sup>	.....	.....	.....
Roscommon..... <sup>a</sup>	{ Nester..... <sup>a</sup>	.....	.....	.....
	{ Roscommon..... <sup>c</sup>	200	147	53

<sup>a</sup> Organized since Census was taken.

<sup>b</sup> Formerly in Iosco county.

<sup>c</sup> Formerly in Midland county.



According to the evidence given in Table XXI. there were 13 townships and one county in this State from which no returns of births were received during the year 1878.

TABLE XXI.—*Exhibiting the Counties and Townships from which no Returns of Births in 1878 were received, and, by Sex, the Number of Inhabitants in such Counties and Townships.*

COUNTIES.	TOWNSHIPS FROM WHICH NO RETURNS OF BIRTHS WERE RECEIVED FOR 1878.	POPULATION IN 1874.		
		Total.	Males.	Females.
Total.....		5,546	3,035	2,510
Chippewa.....	{ Detour..... <sup>a</sup>	221	131	90
	{ Sugar Island..... <sup>a</sup>	332	173	159
Isabella.....	Rolland.....	293	153	140
Isle Royal.....	All Townships.....	4	4	—
	{ Hendricks..... <sup>a b</sup>			
Mackinac.....	{ Holmes..... <sup>a</sup>	798	406	392
	{ Newton..... <sup>a b</sup>			
	{ St. Ignace..... <sup>a</sup>	326	166	160
	{ Cedarville.....	242	159	83
Menominee.....	Breitung..... <sup>b</sup>			
	Spaulding..... <sup>b</sup>			
Muskegon.....	Montague..... <sup>a</sup>	1,360	746	614
Schoolcraft.....	Munising..... <sup>a</sup>	472	320	152
Shiawassee.....	Burns..... <sup>a</sup>	1,498	778	720

<sup>a</sup> County Clerk says no returns from Supervisor.

<sup>b</sup> Organized since Census was taken.

The following tables and exhibits contain important data concerning the sex of children.

TABLE XXII.—*Exhibiting, by Months, the Relation between the Total Number of Conceptions during certain Months of the Years 1877-8, and the Proportion of each Sex Conceived during the same time and Born during the Year ending December 31, 1878, according to the Returns.*

CONCEPTIONS FOR BIRTHS IN 1878, <sup>a</sup>					
Months of 1877 and 1878 of Conceptions of Births in 1878, in order by number, the least first.		Total Number of Conceptions. <sup>b</sup>	Months of 1877 and 1878, in order by number of Males to 100 Females, greatest first.		Number of Males to 100 Females.
Less than the Average Number of Conceptions.	April.....	2,153	More than the Average Number of Males.	April.....	117
	May.....	2,619		December..... <sup>c</sup>	114
	August.....	2,750		July..... <sup>c</sup>	111
	October.....	2,781		September.....	111
	June.....	2,783		January, 1878..... <sup>c</sup>	111
	September.....	2,836		May.....	110
	Average.....	2,923		November..... <sup>c</sup>	110
More than the Average Number of Conceptions.	July.....	2,972	Less than the Average Number of Males.	Average.....	108
	February, 1878.....	3,100		October..... <sup>c</sup>	107
	January, 1878.....	3,199		March, 1878.....	106
	November.....	3,232		June..... <sup>c</sup>	104
	December.....	3,302		August..... <sup>c</sup>	100
	March, 1878.....	3,351		February, 1878.....	100

<sup>a</sup> Equalized to months of 30.44 days each, and excluding unknown sex and unknown month.

<sup>b</sup> For purposes of this study the time of conception is presumed to be nine calendar months previous to the month of birth.

<sup>c</sup> Exceptions to the proposition that more than the average proportion of males were conceived in months in which less than the average total number of conceptions occurred, and vice versa.

EXHIBIT N.—*Births Returned as having occurred in Michigan during the Year 1878, by Sex, and by Months Equalized to 30.44 days each.*

SEX.	YEAR, 1878.	MONTHS OF BIRTHS, EQUALIZED, 1878.												
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
Total.....	35,176	2,162	2,624	2,785	2,980	2,755	2,838	2,784	3,236	3,307	3,207	3,105	3,361	32
Males.....	18,234	1,159	1,369	1,418	1,561	1,375	1,494	1,436	1,690	1,758	1,681	1,551	1,722	20
Females...	16,875	994	1,250	1,365	1,411	1,375	1,342	1,345	1,542	1,544	1,518	1,549	1,629	11
Unknown..	67	9	5	2	8	5	2	3	4	5	8	5	10	1

<sup>a</sup> The total number as equalized is 14 more than the total number returned (35,162).



TABLE XXIII.—*Exhibiting, by Months, the Relation between the Number of Conceptions and the Number of Males to 100 Females. Conceptions estimated from Births Corrected as if Enumerated in Months of Occurrence and Equalized to Months of uniform length.*

CONCEPTIONS FOR BIRTHS IN 1878. <sup>a</sup>					
Months of 1877 and 1878 of Conceptions of Births in 1878, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number, the least first.		Number of Conceptions as Corrected and Equalized. <sup>b</sup>	Months of 1877 and 1878 of Conceptions of Births in 1878, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number of Males to 100 Females, greatest first.		Number of Males to 100 Females. Births Corrected and Equalized.
Less than the Average No. of Conceptions.	April.....	3,004	More than the Average Number of Males.	December..... <sup>c</sup>	114
	February, 1878.....	3,996		September..... <sup>c</sup>	112
	October.....	4,118		July..... <sup>c</sup>	111
	March, 1878.....	4,158		January, 1878.....	111
	January, 1878.....	4,277		May..... <sup>c</sup>	110
More than the Average No. of Conceptions.	Average.....	4,285	Less than the Average Number of Males.	November..... <sup>c</sup>	110
	August.....	4,335		October.....	107
	September.....	4,336		March, 1878.....	106
	May.....	4,508		Average.....	105
	December.....	4,574		June.....	104
	November.....	4,629		August.....	100
	June.....	4,655		February, 1878..... <sup>c</sup>	100
	July.....	4,830		April..... <sup>c</sup>	71

<sup>a</sup> See foot-note <sup>b</sup> to Table XXII., page 63.

<sup>b</sup> Excluding unknown month and unknown sex.

<sup>c</sup> Exceptions to the proposition that *more* than the average proportion of males were conceived in months in which *less* than the average number of conceptions occurred and *less* than the average proportion of males in months in which *more* than the average number of conceptions occurred.

EXHIBIT O.—*Births Returned as having occurred in Michigan during the Year 1878, by Sex, and by Months Equalized to 30.44 days each, and by Months, the Excess of Males over Females, and the Number of Males to 100 Females. Unknown Sex and unknown month excluded.*

SEX.	YEAR, 1878.	MONTHS OF BIRTHS, EQUALIZED, 1878.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Both Sexes.....	<sup>a</sup> 33,078	2,153	2,619	2,783	2,972	2,750	2,836	2,781	3,232	3,302	3,199	3,100	3,361
Males.....	18,214	1,159	1,369	1,418	1,561	1,375	1,494	1,436	1,690	1,768	1,681	1,651	1,722
Females.....	16,864	994	1,250	1,365	1,411	1,375	1,342	1,345	1,542	1,544	1,518	1,549	1,639
Excess of Males	1,350	165	119	53	150	.....	152	91	148	214	163	2	93
Males to 100 Fe- males.....	108	117	110	104	111	100	111	107	110	114	111	100	106

<sup>a</sup> Excluding 98 births of unknown sex and in unknown month, and including 14 gained in equalizing.



TABLE XXIV.—*Exhibiting by Months, according to the Returns, the Relation between the Total Number of Conceptions, and the Total Number of Deaths which occurred in the Months of the Years 1877 and 1878 in which were Conceived the Children Born during the Year ending December 31, 1878.*

DEATHS.			CONCEPTIONS. <sup>b</sup>		
Months <sup>a</sup> of 1877 and 1878 of Conceptions of Births in 1878, arranged in order by Total Number of Deaths, the least first.		Number of Deaths, as Equalized.	Months <sup>a</sup> of 1877 and 1878 of Conceptions of Births in 1878, in order by number, the least first.		Number of Conceptions, as Equalized. <sup>a</sup>
Less than the Average No. of Deaths.	January, 1878.....	717	Less than the Average No. of Conceptions.	April..... <sup>c</sup>	2,162
	February, 1878.....	858		May..... <sup>c</sup>	2,624
	June.....	888		August.....	2,755
	March, 1878.....	914		October.....	2,784
	May.....	958		June..... <sup>c</sup>	2,785
	April.....	992		September.....	2,838
	July.....	1,021		Average.....	2,929
Average.....		1,059	More than the Average No. of Conceptions.	July.....	2,980
More than the Av. No. of Deaths.	November.....	1,075		February, 1878.....	3,105
	December.....	1,134		January, 1878.....	3,207
	October.....	1,190		November..... <sup>c</sup>	3,236
	September.....	1,421		December..... <sup>c</sup>	3,307
	August.....	1,531		March, 1878.....	3,361

<sup>a</sup> Equalized to months of 30.44 days each, excluding unknown month.

<sup>b</sup> See foot-note <sup>b</sup> to table XXII., page 63.

<sup>c</sup> Exceptions to the proposition that there were more than an average number of conceptions in months in which less than an average number of deaths occurred, and less than an average number in months in which more than an average number of deaths occurred.

EXHIBIT P.—*Births Returned as having occurred in Michigan during the Year 1878, by Sex and by Months, Corrected for Omissions in Enumerating. Equalized for Increase of Population during the Year covered by the Returns, and as thus corrected and Equalized for the several Months, Equalized for Months of 30.44 days each. Unknown Sex and unknown Months excluded.*

SEX.	YEAR, 1878.	MONTHS OF BIRTH, 1878.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Both Sexes...	52,588	3,130	4,682	4,820	4,982	4,457	4,442	4,206	4,712	4,639	4,321	4,024	4,173
Males.....	26,945	1,301	2,450	2,458	2,619	2,231	2,342	2,173	2,460	2,472	2,272	2,015	2,146
Females.....	25,643	1,829	2,232	2,362	2,363	2,226	2,100	2,033	2,246	2,167	2,049	2,009	2,027

TABLE XXV.—*Exhibiting the Relation, by Months, between the Number of Conceptions and the Number of Deaths, the Number of Deaths and the Number of Births Returned from which Conceptions are estimated, being Corrected as if Enumerated in Months of Occurrence, and Equalized to Months of uniform length.*

DEATHS.		CONCEPTIONS. <sup>a</sup>		
Months of 1877 and 1878 of Conceptions of Births in 1878, arranged in order by number of Deaths, the least first. Deaths Corrected as if enumerated in months of occurrence, and equalized to months of uniform length.		Months of 1877 and 1878 of Conceptions of Births in 1878, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number, the least first.		
	Number of Deaths, as Corrected and Equalized.		Number of Conceptions, as Corrected and Equalized. <sup>b</sup>	
Less than the Average Number of Deaths.	January, 1878.....	1,272	April.....	3,811
	June.....	1,298	February, 1878..... <sup>c</sup>	3,905
	November.....	1,346	October.....	4,112
	December.....	1,372	March, 1878.....	4,163
	May.....	1,441	January, 1878..... <sup>c</sup>	4,278
	July.....	1,450		
	February, 1878.....	1,481	Average.....	4,348
Average.....	1,524			
More than the Av. No. of Deaths.	March, 1878.....	1,532	August.....	4,331
	April.....	1,534	September.....	4,328
	October.....	1,551	May.....	4,491
	September.....	1,897	December.....	4,570
	August.....	2,109	November.....	4,625
			June.....	4,645
		July.....	4,829	

<sup>a</sup> See foot-note <sup>b</sup> to Table XXII, page 63.

<sup>b</sup> Excluding unknown month.

<sup>c</sup> Exceptions to the proposition that there were *more* than an average number of conceptions in months in which *less* than an average number of deaths occurred, and *less* than an average number of conceptions in months in which *more* than an average number of deaths occurred.



TABLE XXVI.—*Exhibiting by Months, the Relation between the Number of Deaths and the Proportion of each Sex Conceived during the same Months of the Years 1877 and 1878; the Number of Deaths and the Number of Births Returned from which Conceptions are estimated being Corrected as if Enumerated in Months of Occurrence, and Equalized to Months of uniform length.*

DEATHS.		CONCEPTIONS, <sup>a</sup>		
Months of 1877 and 1878 of Conceptions of Births in 1878, arranged in order by number of Deaths, least first. Deaths Corrected as if enumerated in months of occurrence, and equalized to months of uniform length.		Number of Deaths, as Corrected and Equalized.	Months of 1877 and 1878 of Conceptions of Births in 1878, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number of Males to 100 Females, greatest first.	Number of Males to 100 Females. Births Corrected and Equalized. <sup>b</sup>
Less than the Average Number of Deaths.	January, 1878.....	1,272	December.....	114
	June.....	1,298	September..... <sup>c</sup>	112
	November.....	1,346	July.....	111
	December.....	1,372	January, 1878.....	111
	May.....	1,441	May.....	110
	July.....	1,450	November.....	110
	February, 1878.....	1,481	October..... <sup>c</sup>	107
Average.....	1,524	March, 1878..... <sup>c</sup>	106	
More than the Av. No. of Deaths.	March, 1878.....	1,532	Average.....	105
	April.....	1,534	June..... <sup>c</sup>	104
	October.....	1,551	August.....	100
	September.....	1,897	February, 1878..... <sup>c</sup>	100
	August.....	2,109	April.....	71

<sup>a</sup> See foot-note <sup>b</sup> to Table XXII, page 63.

<sup>b</sup> Excluding births in unknown month and of unknown sex.

<sup>c</sup> Exceptions to the proposition that *more* than an average proportion of males were conceived in months in which *less* than an average number of deaths occurred, and *less* than an average proportion of males in months in which *more* than an average number of deaths occurred.

TABLE XXVII.—*Exhibiting by Months, according to the Returns, the Relation between the Total Number of Deaths and the Proportion of each Sex Conceived during the same Months of the Years 1877 and 1878, and Born during the Year ending December 31, 1878.*

DEATHS.			CONCEPTIONS. <sup>b</sup>		
Months <sup>a</sup> of 1877 and 1878 of Conceptions of Births in 1878, arranged in order by Number of Deaths, the least first.		Number of Deaths, as Equalized.	Months <sup>a</sup> of 1877 and 1878, in order by number of Males to 100 Females, greatest first.		Number of Males to 100 Females.
Less than the Average Number of Deaths.	January, 1878.....	717	More than the Average Proportion of Males.	April.....	117
	February, 1878.....	853		December..... <sup>c</sup>	114
	June.....	888		July.....	111
	March, 1878.....	914		September..... <sup>c</sup>	111
	May.....	958		January, 1878.....	111
	April.....	992		May.....	110
	July.....	1,021		November..... <sup>c</sup>	110
Average.....		1,059	Average.....		108
More than the Average Number of Deaths.	November.....	1,075	Less than the Average Proportion of Males.	October.....	107
	December.....	1,134		March, 1878..... <sup>c</sup>	106
	October.....	1,199		June..... <sup>c</sup>	104
	September.....	1,421		August.....	100
	August.....	1,531		February, 1878..... <sup>a</sup>	100

<sup>a</sup> Equalized to months of 30.44 days each, excluding unknown month.

<sup>b</sup> See foot-note <sup>b</sup> to Table XXII, page 63.

<sup>c</sup> Exceptions to the proposition that *more* than an average proportion of males were conceived in months in which *less* than an average number of deaths occurred, and *less* than an average proportion of males in months in which *more* than an average number of deaths occurred.

TABLE XXVIII.—*Exhibiting for the Total Births, for the Twins, Illegiti-  
mates, and Still-born Children Returned as having been Born in Michigan  
during the Year 1878; the Number of Boys to 100 Girls among such Children,  
distinguishing the Parent-Nativities, and thus exhibiting the Influence of  
Parent-Nativity upon Sex of Children.*

NATIVITY OF PARENTS.	BIRTHS, 1878.*		BOYS TO 100 GIRLS.				
	Males.	Females.	Total Births.	Twin Children.	Illegiti- mates.	Still- births.	
All Nativities.....	18,224	16,871	108.02	92.34	110.75	144.63	
Both Parents Native.....	8,485	7,813	108.60	96.04	-----	137.80	
Both Parents Foreign.....	6,216	5,752	108.07	76.69	-----	156.19	
Foreign Father and Native Mother..	1,954	1,904	102.63	78.72	-----	119.23	
Foreign Mother and Native Father..	1,049	907	115.66	163.64	-----	164.28	
One or Both Unknown.....	520	495	105.05	180.00	-----	145.71	
Mothers..	Native.....	10,539	9,821	107.31	93.60	126.00	133.55
	Foreign.....	7,297	6,710	108.75	87.03	54.55	158.33
	Unknown.....	388	340	114.12	166.67	157.14	146.88
Fathers..	Native.....	9,634	8,828	109.13	103.52	172.73	143.26
	Foreign.....	8,237	7,717	106.74	79.25	183.33	149.62
	Unknown.....	353	326	108.28	140.00	102.63	130.30
One or Both Native.....	11,688	10,836	107.86	100.00	-----	138.46	
One or Both Foreign.....	9,318	8,675	107.41	87.18	-----	152.03	
Both Unknown.....	221	171	129.24	100.00	-----	130.00	
Same Country.....	b 14,701	b 13,565	b 108.37	c 89.91	-----	c 146.36	
Different Countries.....	d 3,003	d 2,811	d 106.83	e 91.75	-----	e 136.54	
Same American State or Foreign Country.....	-----	-----	-----	81.43	-----	135.50	
Different American States or Foreign Countries.....	-----	-----	-----	98.44	-----	174.60	

\* Excluding unknown month.

<sup>b</sup> Includes "Native" and "Foreign."

<sup>c</sup> Includes "Native," and same Foreign Country.

<sup>d</sup> Includes "Foreign Father and Native Mother," and "Foreign Mother and Native Father."

<sup>e</sup> Includes "Different Countries," "Foreign Father and Native Mother," and "Foreign Mother and Native Father."



## MARRIAGES, 1878.

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The year 1878 seems to have been an exceptional one, in the large number of marriages returned as having been solemnized in this State. According to the first returns of marriages to the State Department for the year 1878, there were 12,221 marriages solemnized in Michigan in 1878, which is the largest number included in the first returns for any year; and it is probable that this number will be increased by the returns for subsequent years to about 13,000 marriages, inasmuch as the returns for every year contain many marriages which were solemnized in years previous to that for which the general returns are made, these marriages having been omitted when they should have been returned.

The average number of marriages in Michigan in 1878, for each of certain specified periods of time, including marriages in unknown month, is as follows:

Average number per quarter.....	3,055.25
Average number per month.....	1,018.42
Average number per week.....	235.02
Average number per day.....	33.48

Table I. shows the number and per cent. of marriages in each quarter of each of the years 1873-1878. The largest per cent. is shown for the last quarter of each year. In this table the number for each year is corrected for additional returns of marriages since the compilation for these years, respectively, was made.

In Exhibit A the number of marriages is shown as originally returned, compiled, and published. A comparison of this exhibit with Table I. will show the number of marriages returned for each year since the first general returns for these years.

TABLE I.—*Marriages by Quarters of the Year, showing Number and Per Cent. in each Quarter of the Year for each of the Years 1873, 1874, 1875, 1876, 1877, and 1878, Corrected for Additional Returns, up to December 20, 1879.*

TOTALS, AND MONTHS WITH WHICH QUARTERS END.	1873.		1874.		1875.		1876.		1877.		1878.	
	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.
Totals.....	11,897	100.00	12,247	100.00	11,798	100.00	11,803	100.00	11,655	100.00	12,221	100.00
March.....	2,680	22.53	2,943	24.03	2,584	21.90	2,695	22.83	2,683	23.02	2,901	23.74
June.....	2,707	22.75	2,596	21.20	2,651	22.47	2,619	22.19	2,511	21.55	2,606	21.32
September.....	3,029	25.46	2,933	23.95	2,767	23.45	2,844	24.10	2,779	23.84	2,906	23.78
December.....	3,475	29.21	3,764	30.73	3,794	32.16	3,639	30.83	3,671	31.50	3,798	31.08
Unknown.....	6	.05	11	.09	2	.02	6	.05	11	.09	10	.08
Average <sup>a</sup> .....	2,974	25.00	3,062	25.00	2,950	25.00	2,951	25.00	2,914	25.00	3,055	25.00

<sup>a</sup> Including unknown quarter.

EXHIBIT A.—*Marriages by Quarters of the Year, showing number and Per Cent. in each Quarter of the Year, for each of the Years 1873, 1874, 1875, 1876, 1877, and 1878, as Originally Returned and published in Reports.*

TOTALS, AND MONTHS WITH WHICH QUARTERS END.	1873.		1874.		1875.		1876.		1877.		1878.	
	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.
Totals.....	10,574	100.00	11,041	100.00	11,055	100.00	10,858	100.00	11,009	100.00	12,221	100.00
March.....	2,580	24.39	2,832	25.65	2,519	22.79	2,599	23.94	2,633	23.92	2,901	23.74
June.....	2,578	24.38	2,483	22.49	2,557	23.13	2,474	22.79	2,422	22.00	2,006	21.32
September.....	2,774	26.23	2,713	24.57	2,625	23.74	2,677	24.65	2,646	24.03	2,906	23.78
December.....	2,637	24.94	3,003	27.20	3,353	30.33	3,105	28.60	3,298	29.96	3,798	31.08
Unknown.....	5	.05	10	.09	1	.01	3	.03	10	.09	10	.08
Average <sup>a</sup> .....	2,644	25.00	2,760	25.00	2,764	25.00	2,715	25.00	2,752	25.00	3,055	25.00

<sup>a</sup> Including unknown quarter.

In Exhibit B the number of marriages is shown for each of the years 1874-1878, by months, as returned, and as equalized to uniform length. In 1878, October shows the largest number of marriages, and August the least.



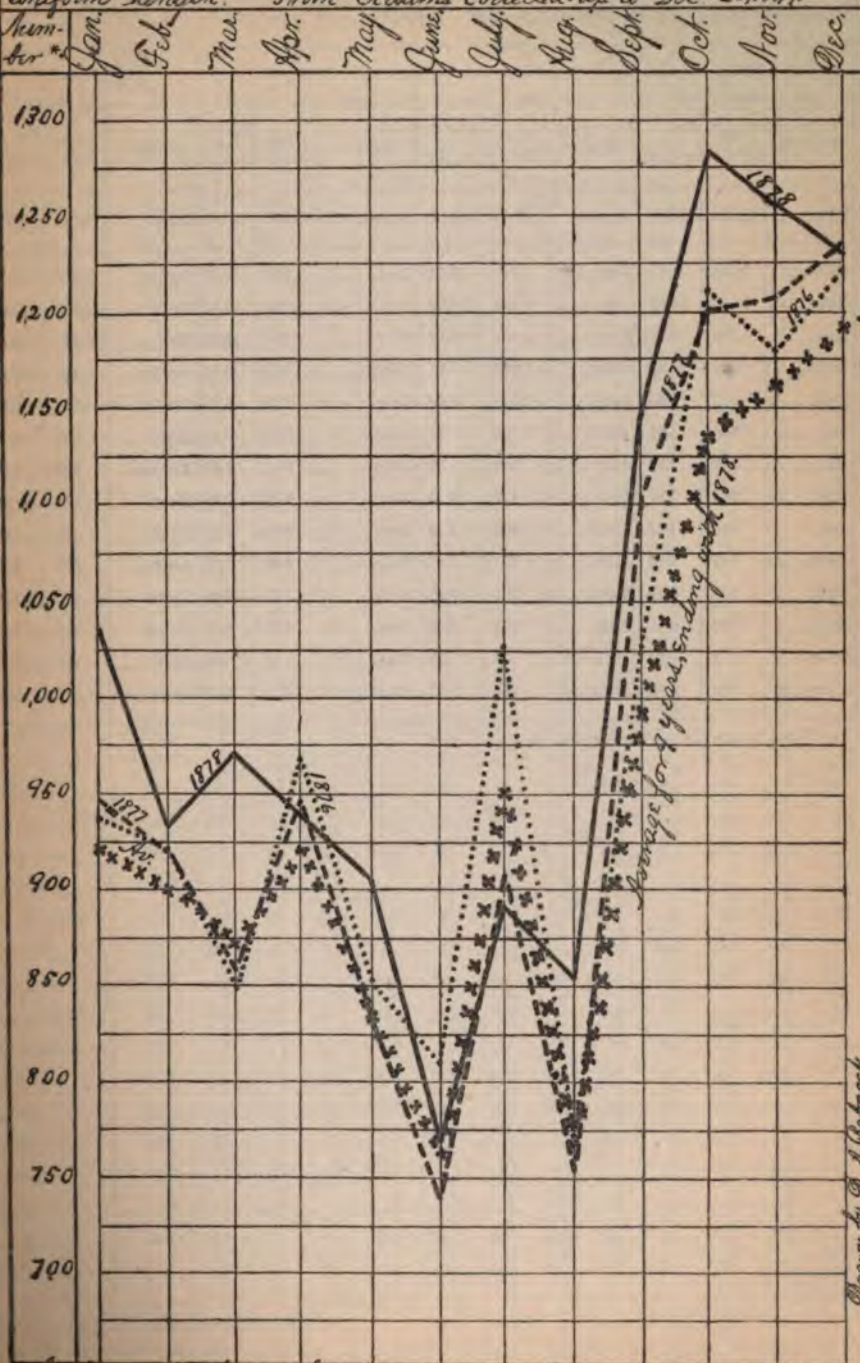
VITAL STATISTICS OF MICHIGAN, 1878.

EXHIBT B.—Marriages in Michigan during the Years 1874 to 1878, inclusive, Corrected, for additional returns, up to December 20, 1879, and Equalized to Months of 30.44 days each.

YEAR.	TOTAL.	MONTHS.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec. Unk.
Marriages as returned.....	12,247	996	979	968	965	844	787	1,011	874	1,048	1,164	1,241	1,339
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.....	.....	-56	+2.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.....	+14	-18	+85	-17	+14	-15	+12	-18	-16	+15	-21	+18	-25
Marriages, equalized to months of uniform length.....	12,261	978	1,064	931	979	829	799	993	858	1,063	1,143	1,259	1,334
Marriages as returned.....	11,798	806	805	913	934	905	812	991	793	983	1,962	1,233	1,299
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.....	.....	-56	+2.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.....	+2	-16	+70	-16	+14	-16	+12	-18	-14	+14	-23	+18	-23
Marriages, equalized to months of uniform length.....	11,800	850	875	897	945	889	824	973	779	997	1,239	1,251	1,276
Marriages as returned.....	11,803	953	877	885	954	868	797	1,047	785	1,012	1,234	1,101	1,244
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.....	.....	-56	+1.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.....	+24	-17	+44	-18	+14	-16	+12	-19	-14	+15	-22	+17	-22
Marriages, equalized to months of uniform length.....	11,779	936	921	849	968	862	809	1,028	771	1,027	1,212	1,178	1,222
Marriages as returned.....	11,655	963	848	872	933	849	729	925	767	1,087	1,223	1,190	1,258
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.....	.....	-56	+2.44	-56	+41	-56	+44	-55	-56	+44	-56	+44	-56
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.....	+8	-17	+74	-16	+14	-15	+11	-17	-14	+16	-22	+17	-23
Marriages, equalized to months of uniform length.....	11,663	945	922	856	947	834	740	908	753	1,103	1,201	1,207	1,235
Marriages as returned.....	12,221	1,055	856	990	926	922	758	907	870	1,129	1,397	1,238	1,223
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.....	.....	-56	+2.44	-56	+44	-56	+44	-55	-56	+44	-56	+44	-56
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.....	+2	-19	+75	-18	+14	-17	+11	-16	-16	+17	-24	+18	-23
Marriages, equalized to months of uniform length.....	12,223	1,036	931	972	940	905	769	891	854	1,146	1,283	1,256	1,230

# Diagram No 2.

Marrages in Michigan during the Years 1876, 1877, and 1878, and Average for 9 Years, ending with 1876, by months equalized to uniform length. From Returns collected up to Dec 20, 1879.



Drawn by G. A. Gabeck.

Scale = 100 to the inch

Designed by Henry O. Baker.



TABLE II.—*Marriages Returned as having been solemnized in Michigan, by Months, Arranged in Order by Number, Months having the greatest number first, for the Years 1875, 1876, 1877, and 1878, Corrected, for additional returns, up to December 20, 1879.*

Order.	1875.			1876.			1877.			1878.		
	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.
	Total....	11,798	100.00	Total....	11,803	100.00	Total....	11,655	100.00	Total....	12,221	100.00
1	Dec.....	1,299	11.01	Dec.....	1,244	10.54	Dec.....	1,258	10.79	Oct.....	1,307	10.70
2	Oct.....	1,262	10.70	Oct.....	1,234	10.45	Oct.....	1,223	10.49	Dec.....	1,253	10.25
3	Nov.....	1,233	10.45	Nov.....	1,161	9.84	Nov.....	1,190	10.21	Nov.....	1,238	10.13
4	July.....	991	8.40	July.....	1,047	8.87	Sept.....	1,087	9.33	Sept.....	1,129	9.24
5	Sept.....	983	8.33	Sept.....	1,012	8.58	Jan.....	963	8.26	Jan.....	1,055	8.63
6	Apr.....	934	7.92	April.....	954	8.08	April.....	923	8.01	Mar.....	990	8.10
7	Mar.....	913	7.74	Jan.....	953	8.08	July.....	925	7.94	April.....	926	7.58
8	May.....	905	7.67	Feb.....	877	7.43	Mar.....	872	7.48	May.....	922	7.55
9	Jan.....	886	7.34	May.....	808	7.35	May.....	849	7.28	July.....	907	7.42
10	June.....	812	6.88	Mar.....	865	7.33	Feb.....	848	7.28	Aug.....	870	7.12
11	Feb.....	805	6.82	June.....	797	6.75	Aug.....	767	6.58	Feb.....	856	7.00
12	Aug.....	793	6.72	Aug.....	785	6.65	June.....	729	6.26	June.....	758	6.20
	Unk.....	2	.02	Unk.....	6	.05	Unk.....	11	.09	Unk.....	10	.08
	Aver'ge <sup>a</sup>	983	8.33	Aver'ge <sup>a</sup>	984	8.33	Aver'ge <sup>a</sup>	971	8.33	Aver'ge <sup>a</sup>	1,018	8.33

<sup>a</sup> Includes those for unknown month.

TABLE III.—*Distinguishing, by Counties and by Months, the number of Marriages returned as having been solemnized in Michigan during the Year ending December 31, 1878.*

STATE AND COUNTIES.	Year, 1878.	MONTHS, 1878.												
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
STATE .....	12,221	1,055	856	990	926	922	758	907	870	1,129	1,307	1,238	1,253	10
Alcona.....	6							1		2	1	1	1	
Allegan.....	275	22	18	24	27	16	16	18	23	20	25	31	35	
Alpena.....	54	1	3	1	4	7	3	3	6	7	5	7	7	
Antrim.....	32	1	1	6	3	2		1	2	3	2	7	4	
Baraga.....	7					1	1	1			1		3	
Barry.....	212	16	21	19	16	11	11	16	16	20	29	17	20	
Bay.....	246	21	19	22	15	21	11	26	24	28	26	23	16	
Benzle.....	21		2			1	1	2	2	5	3	3	2	
Berrien.....	422	31	22	34	28	31	20	39	29	56	34	48	49	1
Branch.....	310	29	16	30	25	21	18	24	20	32	31	39	25	
Calhoun.....	321	40	28	30	20	19	20	14	21	29	40	26	34	
Cass.....	202	17	19	21	21	12	13	13	13	16	15	17	24	1
Charlevoix..	29			3	5	2		3	2	8	2	2	2	
Cheboygan..	40	3	1	3		4	4	2	3	3	6	8	3	
Chippewa...	12					1	1	1	2	2	1	1	3	
Clare.....	16	3	1	3	3	1			2		1	2		
Clinton.....	228	20	25	17	17	21	11	9	15	13	29	21	30	
Delta.....	43	5	1			3	5	4	2	4	4	9	6	
Eaton.....	266	16	21	26	19	20	9	22	21	22	29	28	33	
Emmet.....	55	10	3	1	3	5	5	6	7	5	3	5	2	
Genesee.....	391	37	32	34	23	20	22	38	25	40	53	26	41	
Gladwin...	4		1			1						1	1	
Gr. Traverse	52	6	2	2	5	5	6	3	4	3	6	2	8	
Gratiot.....	133	15	7	11	9	7	6	8	6	13	17	18	16	
Hillsdale...	371	27	31	32	22	17	30	23	27	35	48	43	36	
Houghton...	159	15	16	18	13	15	9	14	12	10	16	13	8	
Huron.....	120	11	12	13	7	7	11	3	8	11	13	13	11	
Ingham.....	395	34	29	23	21	27	32	30	26	33	64	33	42	
Ionia.....	276	27	16	12	25	18	20	16	30	26	32	26	28	
Iosco.....	46	3	3	4	1	3	2	5	6	6	6	5	2	
Isabella.....	56	4	6	3	5	2	4	2	4	4	7	10	4	1
Isle Royal..*														
Jackson.....	358	35	21	25	32	31	19	34	20	29	33	41	38	
Kalamazoo..	302	25	23	31	26	27	14	23	14	34	33	22	30	

\* No returns from county clerk.

TABLE III.—CONTINUED.—*Marriages by Counties, by Months.*

COUNTIES.	Year, 1878.	MONTHS, 1878.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec. Unk.
Kalkaska....	30	3	1	2	5	3	5	5			2	4	5
Kent.....	579	50	38	46	53	36	38	39	50	56	51	58	64
Keweenaw....	26	1	4	4	2	3	2	4	1	2	1	2	
Lake.....	16	2		1	3	1	3	1		2	1		2
Lapeer.....	229	17	17	18	22	15	13	14	16	23	25	27	23
Leelanaw....	27	4			5	5	2	6	1	2	2		
Lenawee....	408	38	35	38	26	31	17	23	35	28	43	54	40
Livingston....	135	13	12	14	10	9	7	5	8	12	17	16	12
Mackinac....	25	5	2	2	2	2	1		1	3	3	1	3
Macomb.....	233	27	16	18	16	17	14	13	16	19	25	22	30
Manistee....	75	2		8	4	5	9	13	4	4	7	9	10
Manitou....	11	1	1		1	1		1		4	1	1	
Marquette....	96	7	5	8	6	6	14	12	6	9	13	2	8
Mason.....	71	7	2	4	13	8	4	6	3	11	8	2	3
Mecosta.....	102	8	4	9	13	11	6	12	3	11	4	10	11
Menominee....	35	2		2	3	5	2	5	6	2	6	2	
Midland.....	54	12	3	4	3		4	8	4	4	5	4	3
Missaukee....	6				1	1		2			1	1	
Monroe.....	305	25	33	27	28	23	29	14	20	24	24	25	28
Montcalm....	233	11	14	25	22	12	18	13	13	29	29	24	23
Muskegon....	161	13	9	11	14	14	10	10	13	11	22	15	19
Nawaygo....	76	5	7	8	4	4	9	7	6	8	8	7	3
Oakland.....	301	33	25	33	24	11	17	20	9	23	29	40	35
Oceana.....	81	11	5	6	9	5	6	8	3	6	8	7	7
Ogemaw.....	3							1	1	1			
Ontonagon....	10					1	1	1	1	2	2	2	
Osceola.....	75	5	5	5	8	8	4	7	5	5	11	6	6
Otsego.....	7			2		1	1				2		1
Ottawa.....	216	11	16	22	16	17	6	20	20	26	19	19	23
Presque I'l..	4		1				1	1				1	
Roscommon....	2	1		1	1								
Saginaw.....	371	37	25	29	24	39	23	31	26	24	33	35	45
Sanilac.....	152	12	5	15	10	12	13	13	7	10	23	13	19
Schoolcraft..	9	1			2	2		2	1	1			
Shiawassee....	165	9	12	7	9	12	14	8	19	17	17	25	16
St. Clair.....	299	29	15	26	23	26	13	21	22	23	35	29	37
St. Joseph....	314	23	25	28	25	18	20	18	15	23	32	41	41



TABLE III.—CONTINUED.—*Marriages by Counties, by Months.*

COUNTIES.	Year, 1878.	MONTHS, 1878.												
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
Tuscola.....	189	12	17	15	12	23	6	23	13	14	22	19	13	-----
Van Buren..	268	17	22	24	18	14	11	15	25	35	28	28	30	1
Washtenaw.	268	35	17	22	21	22	14	19	18	19	23	27	28	1
Wayne.....	1,049	82	57	54	70	116	84	75	81	112	111	109	97	1
Wexford....	46	10	1	4	3	4	-----	9	3	1	4	4	3	-----

The number of marriages, and the number of persons married in Michigan in 1878, by color, are shown in Table IV. It may be seen that 97.95 per cent. of all the persons married were white, and only .32 per cent. were mulatto. According to this table, 54 persons married those of another color.

TABLE IV.—*Exhibiting, by Color and by Sex, the Number of Marriages, and the Number and Per Cent. of Total Number of Persons Married in Michigan during the Year 1878.*

COLOR,—1878.	Sex.	Number of Marriages, 1878.	PERSONS MARRIED, 1878.		Number of Per- sons who Married those of another Color.
			Number.	Per Cent. of Total.	
All Colors.....	Total.....	12,221	24,442	100.00	54
	Males.....	12,221	12,221	50.00	27
	Females.....	12,221	12,221	50.00	27
White.....	Total.....	11,953	23,931	97.91	16
	Males.....	11,978	11,978	49.01	9
	Females.....	11,953	11,953	48.90	7
Black.....	Total.....	79	151	.62	13
	Males.....	79	79	.32	10
	Females.....	79	72	.29	3
Mulatto.....	Total.....	38	79	.32	13
	Males.....	38	38	.16	4
	Females.....	41	41	.17	9
Indian.....	Total.....	53	110	.45	12
	Males.....	53	53	.22	4
	Females.....	57	57	.23	8
One or Both Unknown.....	Total.....	98	171	.70	-----
	Males.....	73	73	.30	-----
	Females.....	98	98	.40	-----
Black and Mulatto.....	Total.....	117	230	.94	26
	Males.....	117	117	.48	14
	Females.....	113	113	.46	12



TABLE V.—*Exhibiting for the State and Counties, the Number of Marriages Returned as having been Solemnized in Michigan during the Year 1878, the Number of White Persons, and by Color the Number of Marriages where one or both parties were other than White.*

STATE AND COUNTIES.	Marriages, 1878.	COLOR OF PERSONS MARRIED, 1878, STATED BY COUPLES.						
		White.	Black.	Mulatto.	Indian.	FEMALE UNK.	MALE UNK.	Both Unknown.
						Male White.	Female White.	
State.....	12,221	a 11,953	b 79	c 38	d 53	25	2	e 71
Alcona.....	6	6						
Allegan.....	275	f 272	1	1		1		
Alpena.....	54	54						
Antrim.....	32	32						
Baraga.....	7	5			g 2			
Barry.....	212	211				1		
Bay.....	246	242	1	1	h 2			
Benzie.....	21	20		1				
Berrien.....	422	413	i 7	j 1		1		
Branch.....	310	309	1					
Calhoun.....	321	309	k 2		l 1	3	2	4
Cass.....	202	185	m 6	n 7		2		e 2
Charlevoix.....	29	27			2			
Cheboygan.....	40	o 38			p 2			
Chippewa.....	12	10			2			
Clare.....	16	16						
Clinton.....	228	228						
Delta.....	43	43						

a Includes 6 couples male White, female White and Indian, 2 couples male White, female Mulatto; 1 couple male White, female Indian, 1 couple, male "Light," female White, and 1 couple "Light."  
b Includes 19 couples "African," 17 couples "Colored," 7 couples male Black, female Mulatto, 2 couples "African and Indian," 1 couple male Black, female White, 1 couple male "African," female White, 1 couple male "Colored," female unknown, 1 couple "Dark," and 1 couple male Black, female White and Indian.  
c Includes 3 couples male "Brown," female "Dark," 2 couples male "Brown," female Mulatto, 1 couple male Mulatto, female White, 1 couple male Mulatto, female Black, 1 couple Mulatto and Indian, 1 couple male "Brown," female Black, 1 couple male Mulatto, female Black, 2 couples male Mulatto, female unknown, and 2 couples "Brown."  
d Includes 2 couples male "Half-breed," female Indian, 1 couple male "Half-breed," female White, 1 couple male Mexican and Indian, female White, 1 couple male Indian, female White and Indian, 1 couple male Indian, female White, 1 couple "Half-breed," 2 couples White and Indian, 1 couple male White and Indian, female White, 1 couple male "½ Breed Indian," female "½ Breed Indian," 1 couple male "½ Breed Indian," female "½ Breed Indian," and 1 couple "Red."  
e Includes 1 couple male unknown, female Black.  
f Includes 1 couple male White, female Indian.  
g Includes 1 couple male "Half-breed," female Indian.  
h Includes 1 couple male "Half-breed," female White.  
i Includes 1 couple "Colored," and 2 couples male Black, female White.  
j Includes 1 couple male Mulatto, female Black.  
k Includes 1 couple "African."  
l Includes 1 couple male Mexican and Indian, female White.  
m Includes 2 couples "African and Indian," 2 couples "African," and 1 couple male Black, female Mulatto.  
n Includes 1 couple Mulatto and Indian.  
o Includes 1 couple male White, female White and Indian.  
p Includes 1 couple male Indian, female White and Indian.

TABLE V.—CONTINUED.—*Marriages in 1878, by Counties, by Color.*

COUNTIES.	Marriages, 1878.	COLOR OF PERSONS MARRIED, 1878, STATED BY COUPLES.						
		White.	Black.	Mulatto.	Indian.	FEMALE UNK.	MALE UNK.	Both Unknown.
						Male White.	Female White.	
Eaton.....	266	264				1		1
Emmet.....	55	38			a 17			
Genesee.....	391	391						
Gladwin.....	4	4						
Grand Traverse.....	52	52						
Gratiot.....	133	b 133						
Hillsdale.....	371	371						
Houghton.....	159	159						
Huron.....	120	120						
Ingham.....	395	391	c 4					
Ionia.....	276	276						
Iosco.....	46	44	d 1	1				
Isabella.....	56	53				2		1
Isle Royal..... <sup>e</sup>								
Jackson.....	358	355	f 2	1				
Kalamazoo.....	302	294	g 4	2				2
Kalkaska.....	30	30						
Kent.....	579	568	h 3	i 2		2		4
Keweenaw.....	26	25						1
Lake.....	16	16						
Lapeer.....	229	226			3			
Leelanaw.....	27	25			2			
Lenawee.....	408	407	1					
Livingston.....	135	135						
Mackinac.....	25	j 22			k 3			
Macomb.....	233	233						
Manistee.....	75	75						
Manitou.....	11	11						
Marquette.....	96	95		1				
Mason.....	71	66			5			
Mecosta.....	102	98	d 4					

<sup>a</sup> Includes 1 couple male Indian, female White, 1 couple male "Half Indian," female Indian, and 1 couple "Half-breed."

<sup>b</sup> Includes 1 couple male "Light," female White.

<sup>c</sup> Includes 1 couple male Black, female Mulatto, 1 couple "Dark," and 1 couple male Black, female White.

<sup>d</sup> Includes 1 couple "African."

<sup>e</sup> No returns from county clerk.

<sup>f</sup> Includes 2 couples "Colored."

<sup>g</sup> Includes 1 couple male Black, female White and Indian.

<sup>h</sup> Includes 1 couple "Colored."

<sup>i</sup> Includes 1 couple male Mulatto, female White.

<sup>j</sup> Includes 4 couples male White, female White and Indian.

<sup>k</sup> Includes 1 couple male White and Indian, female White, and 2 couples White and Indian.



TABLE V.—CONTINUED.—*Marriages in 1878, by Counties, by Color.*

COUNTIES.	Marriages, 1878.	COLOR OF PERSONS MARRIED, 1878, STATED BY COUPLES.						
		White.	Black.	Mulatto.	Indian.	FEMALE UNE.	MALE UNE.	Both Unknown.
						Male White.	Female White.	
Menominee.....	35	35						
Midland.....	54	53	a 1					
Missaukee.....	6	6						
Monroe.....	305	305						
Montcalm.....	233	190				1		42
Muskegon.....	161	b 161						
Newaygo.....	76	75				1		
Oakland.....	301	298	c 1			2		
Oceana.....	81	77			4			
Ogemaw.....	3	3						
Ontonagon.....	10	8			d 2			
Osceola.....	75	75						
Otsego.....	7	7						
Ottawa.....	216	214	e 1		1			
Presque Isle.....	4	4						
Roscommon.....	3	3						
Saginaw.....	371	368	1		2			
Sanilac.....	152	152						
Schoolcraft.....	9	8			f 1			
Shiawassee.....	165	164	1					
St. Clair.....	299	292		1		3		3
St. Joseph.....	314	g 314						
Tuscola.....	189	188			1			
Van Buren.....	268	265		2				1
Washtenaw.....	266	249	h 5	19		3		
Wayne.....	1,049	1,096	k 32	18	1	2		10
Wexford.....	46	46						

a Includes 1 couple male "African," female White.

b Includes 1 couple male White, female White and Indian.

c Includes 1 couple "African."

d Includes 1 couple male "3/4 Breed Indian," female "3/4 Breed Indian," and 1 couple male "3/4 Breed Indian," female "3/4 Breed Indian."

e Includes 1 couple male Black, female White and Indian.

f Includes 1 couple "Red."

g Includes 1 couple male White, female Mulatto.

h Includes 1 couple "African," and 2 couples male Black, female Mulatto.

i Includes 2 couples male "Brown," female "Dark," 1 couple male "Brown," female Mulatto, 1 couple male "Brown," female Black, and 1 couple male Mulatto, female "Maltese."

j Includes 1 couple "Light," and 1 couple male White, female Mulatto.

k Includes 12 couples "African," 12 couples "Colored," 1 couple male Black, female Mulatto, and 1 couple male "Colored," female unknown.

l Includes 2 couples "Brown," 1 couple male "Brown," female Mulatto, 1 couple male "Brown," female "Very Dark," and 2 couples male Mulatto, female unknown.

Exhibit 1 shows the number of persons of each sex of each nativity married in Michigan in 1878, and how they were united to the opposite sex, and the per cent. of brides and of bridegrooms of each nativity. Of the native-born persons married, there was an excess of the proportion of females over the proportion of males for each of the years 1873-1878, the average excess of females for these six years being five per cent.; and of the foreign-born persons married, there was an excess of the proportion of males over the proportion of females for each of the years 1873-1878, the average excess of males for these six years being 5.85 per cent.; that is, there were married more native-born females than native-born males, and more foreign-born males than foreign-born females. The number of native-born females who married foreign-born males is greater than the number of foreign-born females who married foreign-born males; that is, the foreign-born males who were married in this State in 1878 married more native-born females than foreign-born females.

EXHIBIT 1.—*By Nativity, the Number and Per Cent. of Brides and of Bridegrooms Returned as having been married in Michigan during the Year ending December 31, 1878, and by number, the manner of their Union by Nativities.*

BRIDEGROOMS AND BRIDES, NATIVITY SPECIFIED.		BRIDES, 1878.			BRIDEGROOMS, 1878.	
		Native.	Foreign.	Un- known.	Total of each Na- tivity, and of all Na- tivities.	Per Cent. of each Na- tivity.
Bridegrooms ..	{ Native.....	7,801	943	116	8,860	72.50
	{ Foreign.....	1,647	1,550	30	3,227	26.40
	{ Unknown.....	42	8	84	134	1.10
Brides.....	{ Whole No. of each nativity and total..	9,490	2,501	230	12,221	-----
	{ Per cent. of each nativity and total..	77.65	20.47	1.88	-----	100.00

11—1878.



TABLE VI.—*Exhibiting, by Sex, the Nativity of Persons returned as having been Married in Michigan during the Year 1878.*

NATIVITY.	MARRIAGES, 1878.		PERSONS MARRIED, 1878.		
	Number.	Per Cent. of Total.	Number.		
			Total.	Males.	Females.
Total.....	12,221	100.00	24,442	12,221	12,221
Native.....	7,801	63.83	18,350	8,860	9,490
Foreign.....	1,550	12.68	5,728	3,227	2,501
Foreign Male and Native Female.....	1,647	13.48			
Foreign Female and Native Male.....	943	7.72			
Unknown.....	a 280	2.29	364	134	230
One or Both Native.....	10,549	86.32			
One or Both Foreign.....	4,178	34.19			

a Includes cases where nativity of either person was unknown.

The average age of persons married in Michigan in each of the years 1875-1878, by sex, and by nativity for each of the years, is shown in Exhibit C. Judging from the evidence in this exhibit, the average age of the males who marry in this State is about 28 years, and that of the females is about 23 years, the general difference between the ages being about five years. It may be seen that the average age of the native-born persons who marry in this State is about two years less than that of the foreign-born persons, as shown for each sex.

EXHIBIT C.—*Showing the Average Age of Persons Married in Michigan in 1875, 1876, 1877, and 1878, according to the Returns.*

NATIVITY OF PERSONS MARRIED.	1875.		1876.		1877.		1878.	
	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.
All nativities.....	27.91	22.90	28.19	23.05	28.25	23.06	28.01	22.91
Native.....	27.69	22.54	27.64	22.53	27.76	22.59	27.46	22.54
Foreign.....	28.45	24.21	29.54	24.82	29.53	24.63	29.51	24.28
Unknown.....	27.28	20.91	27.94	23.32	27.75	24.36	28.82	23.62

The number of males and of females, and the total of both sexes, married in Michigan in 1878, at each age and period of age, is shown in Table VII, also the proportion of males and of females married at the different periods of life. A larger proportion of each sex is shown for the period between the ages of 21 and 25 years, than for any other period. At the period of 25 to 30 years the proportion of the sexes is nearly equal.

TABLE VII.—*By Sex, Age, and Periods of Age, the Number of Persons Returned as having been Married in Michigan during the Year 1878; the Per Cent. of Total Number of Persons Married at each Age and Period of Age, and the Per Cent. of each Sex at each Age and Period of Age.*

AGES IN YEARS AND PERIODS.	MARRIAGES, 1878.						
	Total Number of Persons Married.	MALES.			FEMALES.		
		Number Married.	Per Cent. of Total Marri- ages.	Per Cent. of Persons Married at Correspond- ing Ages.	Number Married.	Per Cent. of Total Marri- ages.	Per Cent. of Persons Married at Correspond- ing Ages.
All ages.....	24,442	12,221	100.00	50.00	12,221	100.00	50.00
13.....	4				4	.03	100.00
14.....	35				35	.28	100.00
15.....	122				122	1.00	100.00
16.....	712	1	.01	.14	711	5.82	99.86
17.....	987	9	.07	.91	978	8.00	99.09
18.....	1,523	91	.75	5.98	1,432	11.72	94.02
19.....	1,571	248	2.03	15.79	1,323	10.83	84.21
20.....	1,942	556	4.55	28.63	1,386	11.34	71.37
21 to 25.....	7,710	4,490	36.74	58.24	3,220	26.35	41.76
25 to 30.....	5,006	3,613	29.56	72.17	1,393	11.40	27.83
30 to 35.....	1,879	1,301	10.65	69.24	578	4.73	30.76
35 to 40.....	1,084	715	5.85	65.96	369	3.02	34.04
40 to 45.....	592	374	3.06	63.18	218	1.78	30.82
45 to 50.....	369	227	1.86	61.52	142	1.16	38.48
50 to 55.....	287	186	1.52	64.81	101	.83	35.19
55 to 60.....	186	120	.98	64.52	66	.54	35.48
60 to 65.....	154	116	.95	75.32	38	.31	24.68
65 to 70.....	90	71	.58	78.89	19	.15	21.11
70 to 75.....	41	36	.29	87.80	5	.04	12.20
75 to 80.....	15	13	.11	86.67	2	.02	13.33
80 and over.....	3	3	.02	100.00			
Unknown.....	130	51	.42	39.23	79	.65	60.77
Under 15.....	39				39	.32	100.00
15 to 20.....	4,915	349	2.86	7.10	4,566	37.36	92.90
20 to 25.....	9,652	5,046	41.29	52.28	4,606	37.69	47.72



## VITAL STATISTICS OF MICHIGAN, 1878.

TABLE VIII.—*Exhibiting for the State and Counties, by Sex, the Nativity and Age in Periods of Years, of Persons Returned as having been Married in Michigan during the year ending December 31, 1878.*

STATE AND COUNTIES.		Number of Couples Married, 1878.	NATIVITY OF PERSONS MARRIED, 1878, STATED BY COUPLES.										SEX STATED.	MARRIAGES AT DIFFERENT AGES, STATED IN PERIODS OF YEARS, 1878.														
			Both Native.		Both Foreign.		FEMALES UNKNOWN.		MALES UNKNOWN.		Both Unknown.			SEX STATED.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.
							For- eign Na- tives.	For- eign Na- tives.	For- eign Na- tives.	For- eign Na- tives.																		
STATE.....	12,221	7,801	1,550	1,647	943	a 116	b 30	c 42	d 8	e 84	Males.....	349	5,045	1,301	715	374	257	186	120	116	71	36	13	3	51	79		
											Females....	4,905	4,006	1,393	578	369	218	142	101	66	38	19	5	2	---	---		
Alcona.....	6	5	---	1	---	---	---	---	---	---	Males.....	---	2	3	---	---	---	---	---	---	---	---	---	---	---	---	---	
											Females....	5	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	
Allegan.....	275	213	22	25	14	---	f 1	---	---	---	Males.....	5	112	77	34	19	6	8	4	2	2	5	1	---	---	---	---	
											Females....	101	106	25	16	6	7	4	5	2	1	2	---	---	---	---	---	
Alpena.....	54	10	25	10	9	---	---	---	---	---	Males.....	---	14	26	8	---	5	1	---	---	---	---	---	---	---	---	---	
											Females....	21	20	7	4	1	1	---	---	---	---	---	---	---	---	---	---	
Antrim.....	32	13	9	5	5	---	---	---	---	---	Males.....	1	9	15	4	---	3	---	---	---	---	---	---	---	---	---	---	
											Females....	17	5	4	3	1	---	---	---	---	---	---	---	---	---	---	---	
Baraga.....	7	3	2	2	---	---	---	---	---	---	Males.....	---	1	5	1	---	---	---	---	---	---	---	---	---	---	---	---	
											Females....	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Barry.....	212	175	4	24	8	1	---	---	---	---	Males.....	8	80	63	17	11	6	4	3	1	2	8	2	1	---	---	---	
											Females....	94	72	20	11	1	4	1	3	3	---	2	---	---	---	---	---	
Bay.....	246	80	84	41	37	1	1	---	1	1	Males.....	9	95	80	31	19	10	1	2	4	1	---	---	---	---	---	---	
											Females....	102	80	32	11	11	5	2	---	---	1	---	---	---	---	---	---	
Benzie.....	21	16	1	3	1	---	---	---	---	---	Males.....	---	8	5	4	3	---	---	---	---	---	---	---	---	---	---	---	---
											Females....	9	7	2	---	---	---	1	---	---	---	---	---	---	---	---	---	
Berrien.....	422	335	18	40	14	5	1	3	---	6	Males.....	10	206	101	40	21	14	8	9	5	5	1	1	---	---	---	---	
											Females....	143	169	42	23	19	5	9	2	3	1	---	---	---	---	---	---	
Branch.....	310	271	9	17	5	7	1	---	---	---	Males.....	10	158	81	32	14	9	5	4	4	2	1	---	---	---	---	---	
											Females....	146	97	35	15	4	3	3	2	1	---	---	---	---	---	---	---	
Bathoun.....	321	271	13	26	7	1	2	1	---	---	Males.....	82	143	79	36	14												

## MARRIAGES—BY COUNTIES, NATIVITY, SEX, AND AGE.

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202	Cass.....	183	2	8	8	1			Males.... Females..	6 82	96 65	53 26	15 13	9 5	10 4	5 1	3 1	2 1	1	2
29	Charlevoix..	14	9	2	3			1	Males.... Females..	15	6	9	5	1	2	1	1	2		
40	Cheboygan..	12	15	8	5				Males.... Females..	2 14	18 20	9 3	3 1	4 1	1 1	2	1			
72	Chippewa...-	5	6	1					Males.... Females..	4 6	6 2	2 1	1 1		1	1	1			
16	Clare.....	9	3		2	1		1	Males.... Females..	8 4	10 3	2 1	1 1		1	1	1			
228	Clinton.....	175	6	22	20	1	3	1	Males.... Females..	10 91	110 95	68 19	15 8	10 5	5 3	2 4	3 1			1 2
43	Delta.....	9	22	9	2			1	Males.... Females..	16 17	10 14	14 8	2	10	4	3	1			
268	Eaton.....	233		16	12	4		1	Males.... Females..	14 113	120 96	66 18	15 13	10 12	2 2	5 3	2 2	6	1	2
55	Emmet.....	43	1	5	4		1		Males.... Females..	3 24	14 14	19 5	3	1	2		1	1		5
391	Genesee....-	282	16	47	41	3		2	Males.... Females..	15 154	170 163	103 33	43 22	15 9	16 10	4 4	5 6	2 1	4	1 1
4	Gladwin....-	1		2				1	Males.... Females..	4 3		1								
52	Gr. Traverse	31	6	8	4	1		1	Males.... Females..	1 29	31 19	12 2	3 1	3 1	1		1			
133	Gratiot.....	107	5	16	5				Males.... Females..	8 62	64 44	35 12	10 5	4 1	4 1	2 2	3 1	1		
371	Hillsdale....	328	2	11	11	5	6	8	Males.... Females..	12 127	173 142	96 45	28 19	6 16	9 7	9 4	3 4	3 4	5	1 2
159	Houghton...	14	101	30	11		2 ± 1		Males.... Females..	2 56	51 65	62 23	11 8	9	1	1				
120	Huron.....	24	46	32	15		1	2	Males.... Females..	5 69	49 11	45	9	2		1	2	1	3	3
395	Ingham.....	309	18	43	14	6	2	a 3	Males.... Females..	13 141	123 135	37 43	21 15	8 11	9 10	5 4	5 3	2		5 6

<sup>a</sup> Includes 2 females "America," <sup>b</sup> Includes 3 females "North America," <sup>c</sup> Includes 1 male "North America," and 1 male "America," <sup>d</sup> Includes 2 males "America," <sup>e</sup> Includes 5 couples "America," <sup>f</sup> 1 female "North America," <sup>g</sup> 1 male "North America," <sup>h</sup> Includes 2 couples "America."











## MARRIAGES—BY COUNTIES, NATIVITY, SEX, AND AGE.

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[illegible]



EXHIBIT 2.—*Number of Persons Returned as having been Married in Michigan in 1878, by Sex, and Excess of the Sexes, by Age in Years.*

Ages in Years.	PERSONS MARRIED IN 1878.			EXCESS.		Ages in Years.	PERSONS MARRIED IN 1878.			EXCESS.		
	Total.	Males.	Fe-males.	Males.	Fe-males.		Total.	Males.	Fe-males.	Males.	Fe-males.	
All ages	24,442	12,221	12,221	-----	-----	48	72	43	29	14	-----	
						49	64	39	25	14	-----	
13	4	-----	4	-----	4	50	86	51	35	16	-----	
14	35	-----	35	-----	35	51	44	29	15	14	-----	
15	122	-----	122	-----	122	52	57	40	17	23	-----	
16	712	1	711	-----	710	53	48	29	19	10	-----	
17	987	9	978	-----	969	54	52	37	15	22	-----	
18	1,523	91	1,432	-----	1,341	55	44	33	11	22	-----	
19	1,571	248	1,323	-----	1,075	56	46	26	20	6	-----	
20	1,942	556	1,386	-----	830	57	28	17	11	6	-----	
21	2,173	1,112	1,061	51	-----	58	49	33	16	17	-----	
22	2,051	1,108	943	165	-----	59	19	11	8	3	-----	
23	1,805	1,123	682	441	-----	60	37	27	10	17	-----	
24	1,681	1,147	534	613	-----	61	29	26	3	23	-----	
25	1,326	921	405	516	-----	62	34	26	8	18	-----	
26	1,191	848	343	505	-----	63	28	18	10	8	-----	
27	961	719	242	477	-----	64	26	19	7	12	-----	
28	928	694	234	460	-----	65	28	24	4	20	-----	
29	660	431	169	262	-----	66	15	12	3	9	-----	
30	575	392	183	209	-----	67	18	11	7	4	-----	
31	373	266	107	159	-----	68	21	17	4	13	-----	
32	349	244	105	139	-----	69	8	7	1	6	-----	
33	305	213	92	121	-----	70	18	16	2	14	-----	
34	277	186	91	95	-----	71	7	7	-----	7	-----	
35	308	196	112	84	-----	72	7	6	1	5	-----	
36	209	139	70	69	-----	73	3	2	1	1	-----	
37	219	143	76	87	-----	74	6	5	1	4	-----	
38	224	155	69	86	-----	75	3	3	-----	3	-----	
39	124	82	42	40	-----	76	4	3	1	2	-----	
40	178	108	70	38	-----	77	5	4	1	3	-----	
41	99	66	33	33	-----	78	2	2	-----	2	-----	
42	131	68	43	45	-----	79	1	1	-----	1	-----	
43	94	57	37	20	-----	84	1	1	-----	1	-----	
44	90	55	35	20	-----	86	1	1	-----	1	-----	
45	101	66	35	31	-----	89	1	1	-----	1	-----	
46	70	43	27	16	-----	Unk..	130	51	79	-----	28	-----
47	62	36	26	10	-----							-----

## MARRIAGES—PERSONS AGED UNDER TWENTY-ONE YEARS. 91

Table IX. shows, by county, by sex, the number of persons returned as having been married in Michigan in 1878 under the age of twenty-one years. More males and more females were returned as having been married under 21 years of age in 1878 than in any previous year, and more persons were married under the lawful age in 1878 than in any previous year. The legal marriageable age in this State is 18 years for males and 16 years for females; and in 1878 there were 10 males and 161 females returned as having been married under the legal age.

TABLE IX.—*Exhibiting, for the State and Counties, the Total Number, and Number of each Sex under 21 years of Age; and the Number of each Sex at each Age under that of 21 years, Returned as having been Married in Michigan during the year ending December 31, 1878.*

STATE AND COUNTIES.	PERSONS MARRIED UNDER 21 YEARS OF AGE, 1878.			AGES OF MALES, 1878.					AGES OF FEMALES, 1878.							
	Total.	Males.	Fe- males.	Twenty.	Nineteen.	Eighteen.	Seventeen.*	Sixteen.*	Twenty.	Nineteen.	Eighteen.	Seventeen.	Sixteen.	Fifteen.*	Fourteen.*	Thirteen.*
STATE.....	6,894	904	5,990	556	247	91	9	1	1,385	1,321	1,434	978	711	122	35	4
Alcona.....	6	1	5	1						2	2			1		
Allegan.....	153	17	136	12	4	1			35	28	26	18	25	4		
Alpena.....	26	1	25	1					4	6	9	4	2			
Antrim.....	21	2	19	1		1			2	5	1	5	6			
Baraga.....	8	1	7	1						2	3	1		1		
Barry.....	131	18	113	10	7	1			19	31	24	15	22	2		
Bay.....	126	9	117	7	1	1			15	28	28	26	19	1		
Benzie.....	10	1	9	1						6			3			
Berrien.....	228	40	188	30	6	3	1		45	44	36	31	22	6	3	1
Branch.....	207	26	181	16	7	3			35	36	46	45	18	1		
Calhoun.....	154	23	131	15	4	4			39	31	31	17	13			
Cass.....	116	15	101	9	6				19	24	24	20	10	4		
Charlevoix.....	16		16						1	4	6	3	2			
Cheboygan.....	23	2	21		2				7	3	4	4	3			
Chippewa.....	4		4								4					
Clare.....	11		11						3		3	2	2		1	
Clinton.....	139	19	120	9	6	4			29	28	31	15	16	1		
Delta.....	23	3	20	2		1			4	4	3	4	4	1		
Eaton.....	180	30	150	16	10	4			37	27	30	28	23	2	3	
Emmet.....	40	5	35	2	1	1	1		11	4	4	6	7	2	1	
Genesee.....	258	44	214	29	10	4	1		60	48	49	24	24	6	2	1
Gladwin.....	4		4							1	1		1	1		
Grand Traverse.....	36	3	33	2	1				4	4	11	7	7			
Gratiot.....	96	15	81	7	5	3			19	14	16	18	10	4		

\* Not legal marriages. For law and penalty to persons solemnizing, see sections (4719), (4720), (4728), and (4729), Compiled Laws of 1871, pages 1462 and 1463.



TABLE IX.—CONTINUED.—*Persons Married under 21 Years of Age.*

COUNTIES.	PERSONS MARRIED UNDER 21 YEARS OF AGE, 1878.			AGES OF MALES, 1878.					AGES OF FEMALES, 1878.							
	Total.	Males.	Fe- males.	Twenty.	Nineteen.	Eighteen.	Seventeen. <sup>a</sup>	Sixteen. <sup>a</sup>	Twenty.	Nineteen.	Eighteen.	Seventeen.	Sixteen.	Fifteen. <sup>a</sup>	Fourteen. <sup>a</sup>	Thirteen. <sup>a</sup>
Hillsdale.....	199	36	163	24	8	3	1	.....	36	40	39	33	15	.....	.....	.....
Houghton.....	90	9	81	7	2	.....	.....	.....	25	10	22	10	8	6	.....	.....
Huron.....	85	13	72	8	3	2	.....	.....	13	7	21	19	11	1	.....	.....
Ingham.....	210	32	178	19	8	5	.....	.....	37	32	55	27	20	2	5	.....
Ionia.....	173	21	152	14	5	2	.....	.....	37	36	36	22	20	1	.....	.....
Iosco.....	25	2	23	1	.....	1	.....	.....	8	2	3	6	4	.....	.....	.....
Isabella.....	39	4	35	2	1	1	.....	.....	3	10	8	6	4	4	.....	.....
Isle Royal..... <sup>b</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson.....	193	29	164	21	6	2	.....	.....	45	36	39	23	20	1	.....	.....
Kalamazoo.....	183	18	115	15	2	1	.....	.....	27	31	33	9	13	1	1	.....
Kalkaska.....	19	.....	19	.....	.....	.....	.....	.....	5	3	5	4	2	.....	.....	.....
Kent.....	291	31	260	19	7	4	1	.....	59	64	51	52	30	2	2	.....
Keweenaw.....	12	1	11	1	.....	.....	.....	.....	2	.....	4	4	1	.....	.....	.....
Lake.....	14	2	12	1	1	.....	.....	.....	4	2	2	3	.....	1	.....	.....
Lapeer.....	145	23	122	13	8	2	.....	.....	27	25	25	27	14	4	.....	.....
Leelanaw.....	22	4	18	3	1	.....	.....	.....	1	3	3	3	4	4	.....	.....
Lenawee.....	231	41	190	23	11	6	1	.....	46	43	56	30	12	2	1	.....
Livingston.....	67	7	60	5	1	1	.....	.....	13	12	14	15	6	.....	.....	.....
Mackinac.....	12	.....	12	.....	.....	.....	.....	.....	1	4	5	.....	1	1	.....	.....
Macomb.....	132	16	116	10	6	.....	.....	.....	28	29	32	13	12	2	.....	.....
Manistee.....	45	1	44	1	.....	.....	.....	.....	8	11	9	10	6	.....	.....	.....
Manitou.....	4	.....	4	.....	.....	.....	.....	.....	1	.....	1	2	.....	.....	.....	.....
Marquette.....	53	4	49	2	2	.....	.....	.....	14	10	13	9	2	.....	.....	1
Mason.....	39	4	35	4	.....	.....	.....	.....	4	8	10	7	4	2	.....	.....
Mecosta.....	65	2	63	1	1	.....	.....	.....	14	17	13	12	4	2	1	.....
Menominee.....	21	1	20	.....	1	.....	.....	.....	4	3	6	3	2	1	1	.....
Midland.....	29	2	27	1	.....	1	.....	.....	2	5	9	4	6	1	.....	.....
Missaukee.....	6	2	4	1	1	.....	.....	.....	.....	1	2	.....	1	.....	.....	.....
Monroe.....	164	27	137	13	12	2	.....	.....	32	36	32	22	15	.....	.....	.....
Montcalm.....	170	32	138	15	12	5	.....	.....	21	17	34	27	30	6	2	1
Muskegon.....	71	3	68	3	.....	.....	.....	.....	13	10	28	7	7	3	.....	.....
Newaygo.....	51	6	45	4	2	.....	.....	.....	5	8	11	9	10	2	.....	.....
Oakland.....	155	24	131	14	10	.....	.....	.....	37	40	33	9	11	1	.....	.....
Oceana.....	61	8	53	5	3	.....	.....	.....	7	7	13	11	11	3	1	.....

<sup>a</sup> Not legal marriages. For law and penalty to persons solemnizing, see sections (4719), (4720), (4728), and (4729), Compiled Laws of 1871, pages 1462 and 1463.

<sup>b</sup> No returns of marriages from county clerk.

TABLE IX.—CONTINUED.—*Persons Married under 21 Years of Age.*

COUNTIES.	PERSONS MARRIED UNDER 21 YEARS OF AGE, 1878.			AGES OF MALES, 1878.					AGES OF FEMALES 1878.							
	Total.	Males.	Fe- males.	Twenty.	Nineteen.	Eighteen.	Seventeen. <sup>a</sup>	Sixteen. <sup>a</sup>	Twenty.	Nineteen.	Eighteen.	Seventeen.	Sixteen.	Fifteen. <sup>a</sup>	Fourteen. <sup>a</sup>	Thirteen. <sup>a</sup>
Ogemaw .....	4	1	3	1					1	2						
Ontonagon .....	7		7						2	2		3				
Osceola .....	46	7	39	3	4				5	9	5	5	12	2	1	
Otsego .....	3		3								1	1	1			
Ottawa .....	128	19	109	10	5	2	2		23	23	23	15	12	3		
Presque Isle .....	2		2						1			1				
Roscommon .....	1		1							1						
Saginaw .....	202	20	182	10	5	4	1		32	39	47	34	25	5		
Sanilac .....	94	6	88	5	1				22	22	20	8	11	3	2	
Schoolcraft .....	4		4						1			1	1		1	
Shiawassee .....	112	18	94	9	7	2			19	17	24	21	10	3		
St. Clair .....	169	20	149	14	4	2			45	33	33	22	12	4		
St. Joseph .....	186	32	154	18	9	4	1		34	32	44	27	14	2	1	
Tuscola .....	139	11	119	8	3				21	22	27	25	19	3	2	
Van Buren .....	160	25	135	16	6	3			33	22	34	23	10	5	3	
Washtenaw .....	112	12	100	7	2	3			32	32	19	10	7			
Wayne .....	452	47	405	29	16	2			133	112	94	44	22			
Wexford .....	40	6	34	6					4	6	4	7	10	2	1	

<sup>a</sup> Not legal marriages. For law and penalty to persons solemnizing, see sections (4719), (4720), (4728), and (4729), Compiled Laws of 1871, pages 1462 and 1463.



## MANNER OF UNION BY AGES.

Table X. shows the number and per cent. of persons married in 1878 at each period of age, and the ages (in periods) of the persons whom the persons of the opposite sex at each period of age married. For example, of the 349 males who were married under 20 years of age, 264 married females under 20 years of age, 82 married females aged 20 to 25 years, 1 aged 25 to 30 years, and 2 aged 35 to 40 years; and in the same manner the number of males at each period of age is read. Of the 4,605 females who were married under the age of 20 years, 264 married males under 20 years of age, 2,690 married males aged 20 to 25 years, 1,247 married males aged 25 to 30 years, 267 aged 30 to 35 years, 97 aged 35 to 40 years, 20 aged 40 to 45 years, 7 aged 45 to 50 years, 7 aged 50 to 55 years, 1 aged 55 to 60 years, 2 aged 70 to 75 years, and 3 of unknown age; and thus may be read the number of females married at each period of age.

TABLE X.—*Exhibiting the Number of each Sex at each Period of Age who were married in Michigan during the Year 1878; the Number of each Sex at each Period of Age who were united to the opposite Sex at each Period of Age; and the Per Cent. of Brides and of Bridegrooms at each Period of Age to Total at All Ages.*

AGES OF MALES, 1878,	AGES OF FEMALES, 1878,															Total Males,	Per Cent. of Grooms at each Age.
	Un- der 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unk'n.		
Under 20....	264	82	1	2	---	---	---	---	---	---	---	---	---	---	---	349	2.86
20 to 25.....	2,690	2,097	199	31	8	2	---	---	1	---	---	---	---	---	18	5,046	41.29
25 to 30.....	1,247	1,670	544	109	29	5	---	1	---	---	---	---	---	---	8	3,613	29.56
30 to 35.....	267	474	313	158	64	16	4	1	---	---	---	---	---	---	4	1,301	10.65
35 to 40.....	97	180	182	122	81	33	11	6	---	---	1	---	---	---	2	715	5.85
40 to 45.....	20	58	96	66	73	43	12	4	1	---	---	---	---	---	1	374	3.06
45 to 50.....	7	26	25	44	48	32	29	11	4	---	1	---	---	---	---	227	1.86
50 to 55.....	7	4	17	23	32	41	30	20	9	2	1	---	---	---	---	186	1.52
55 to 60.....	1	9	6	10	17	17	23	16	12	2	1	---	---	---	1	120	.98
60 to 65.....	---	3	7	8	11	19	16	18	17	13	3	---	---	---	1	116	.95
65 to 70.....	---	---	---	1	4	4	5	5	17	12	11	10	1	1	---	71	.58
70 to 75.....	2	---	---	1	1	1	4	4	6	6	6	1	4	---	---	36	.29
75 to 80.....	---	---	---	---	---	1	2	1	4	3	1	---	1	---	---	13	.11
80 and over..	---	---	---	---	1	---	1	---	---	1	---	---	---	---	---	3	.02
Unknown....	3	3	1	---	---	---	---	---	---	---	---	---	---	---	44	51	.42
Total Females. }	4,605	4,606	1,393	578	369	218	142	101	66	38	19	5	2	---	79	12,221	-----
Per Ct. of Brides at each age. }	37.68	37.69	11.40	4.73	3.02	1.78	1.16	.83	.54	.31	.15	.04	.02	---	.65	-----	100.00

## GREAT DIFFERENCES IN AGES OF PERSONS MARRIED.

Table XI. shows great disparity of ages between persons united in marriage in this State in 1878, as stated in the returns. Among those cases in which the bridegroom was the older, the greatest disparity appears for Saginaw county, in which case the disparity was 55 years, the age of the bridegroom being 74 years, and that of the bride being 19 years; and among those cases where the bride was the older, the greatest disparity appears for Huron county, in which case the disparity was 33 years, the age of the bridegroom being 23 years, and that of the bride 56 years.

TABLE XI.—*Marriages with Great Disparity of Ages of Persons Married, in Michigan during the Year ending December 31, 1878.*

COUNTIES.	BRIDE-GROOM OLDEST,—1878.				BRIDE OLDEST,—1878.			
	OCCUPATION OF BRIDE-GROOM.	BIRTHPLACE.		AGE.	OCCUPATION OF BRIDE-GROOM.	BIRTHPLACE.		AGE.
		Bridegroom.	Bride.			Bridegroom.	Bride.	
Allegan.....	Farmer.....	England.....	Ohio.....	67	Farmer.....	New York.....	New York.....	47
Alpena.....	Land Agent.....	New York.....	Ontario.....	44				65
Antrim.....								
Barry.....	Farmer.....	Connecticut.....	Ohio.....	62	Farmer.....	Scotland.....	N. Brunswick.....	32
Bay.....	Tailor.....	Germany.....	Germany.....	53	Farmer.....	England.....	New York.....	39
Benzie.....	Farmer.....	New York.....	New York.....	35				54
Berrien.....	Farmer.....	New York.....	Indiana.....	41				
Branch.....	Mason.....	Pennsylvania.....	Ohio.....	41	Teacher.....	Ohio.....	New York.....	23
Calhoun.....	Farmer.....	England.....	Michigan.....	50	Farmer.....	Ohio.....	Indiana.....	27
Cass.....	Farmer.....	Virginia.....	N. Carolina.....	77	Carpenter.....	Ohio.....	Michigan.....	33
Charlevoix.....	Farmer.....	Vermont.....	Michigan.....	42	Farmer.....	Tennessee.....	New York.....	53
Cheboygan.....	Laborer.....	Canada.....	Michigan.....	53				65
Chippewa.....								
					Farmer.....	New York.....	Michigan.....	61
								63

\* "African" and Indian.



TABLE XI.—CONTINUED.—Marriages with great Disparity of Ages.

COUNTIES.	BRIDEGROOM OLDEST,—1878.				BRIDE OLDEST,—1878.			
	OCCUPATION OF BRIDEGROOM.	BIRTHPLACE.		AGE. Bride- groom.	OCCUPATION OF BRIDEGROOM.	BIRTHPLACE.		AGE. Bride- groom.
		Bridegroom.	Bride.			Bridegroom.	Bride.	
Clinton.....	Blacksmith.....	Germany.....	New York.....	35				
Delta.....	Laborer.....	New York.....	Illinois.....	49				
Eaton.....	Farmer.....	Massachusetts.....	Scotland.....	63	Farmer.....	Vermont.....	Pennsylvania.	48
Emmet.....	Farmer.....	Ohio.....	Indiana.....	56	Lumberman.....	Canada.....	Michigan.....	39
Genesee.....	Farmer.....	New York.....	Canada.....	72	Farmer.....	Michigan.....		38
Gratiot.....	Laborer.....	Pennsylvania.....	Pennsylvania.....	76				
Hillsdale.....	Farmer.....	Vermont.....	Canada.....	61	Farmer.....	New York.....	New York.....	28
Houghton.....	Miner.....	Sweden.....	Finland.....	37	Laborer.....	Sweden.....	Finland.....	27
Huron.....	Farmer.....	Ireland.....	Pennsylvania.....	52	Farmer.....	Canada.....	New York.....	23
Ingham.....	Agriculturist.....	New York.....	Michigan.....	58	Farmer.....	Connecticut.....	Ohio.....	24
Ionia.....	Mechanic.....	New Jersey.....	Canada.....	39	Farmer.....	Vermont.....	New York.....	34
Iosco.....	Farmer.....	New York.....	New York.....	65				
Isabella.....	Farmer.....	Ireland.....	Michigan.....	55				
Jackson.....	Farmer.....	Massachusetts.....	Pennsylvania.....	58	Farmer.....	New York.....	New York.....	23
Kalamazoo.....	Farmer.....	N. Carolina.....	Indiana.....	40	Farmer.....	Ontario.....	Ohio.....	41
Kalkaska.....	Carpenter.....	New York.....	Michigan.....	51				
Kent.....	Farmer.....	New York.....	Canada.....	70	Farmer.....	New York.....	New York.....	37
Lake.....	Laborer.....	New York.....	Michigan.....	34				
Lapeer.....	Farmer.....	New Jersey.....	Michigan.....	70				
Leelanaw.....	Farmer.....	Pennsylvania.....	New York.....	50				
Lenawee.....	Farmer.....	New York.....	New York.....	63	Lumberman.....	Ohio.....	New York.....	28
Livingston.....	Mechanic.....	Massachusetts.....	Michigan.....	86	Farmer.....	Ohio.....	New York.....	38

## MARRIAGES—DISPARITY OF AGES.

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Macomb	Farmer	Ireland	Michigan	60	26	Miner	Sweden	Sweden	23	34
Marquette										
Mason	Farmer	Michigan	Michigan	43	15					
Mecosta	Farmer	New York	Indiana	45	19					
Midland	Physician	Rhode Island	Germany	62	32	Farmer	New York	New York	23	32
Monroe	Farmer	Ireland	Michigan	70	30	Farmer	Michigan	Michigan	23	33
Montcalm	Mill-man	Ohio	Ohio	46	17	Farmer	Denmark	New York	b 21	b 32
Muskegon	Atty. at Law	Scotland	Michigan	45	18	Laborer	Michigan	New York	22	35
Newaygo	Bee Keeper	New York	Canada	46	20	Farmer	Michigan	Michigan	21	31
Oakland	Farmer	New York	Ohio	68	40	Farmer	England	Michigan	23	37
Oceana	Merchant	Ohio	Michigan	47	22					
Osceola	Farmer	New York	New York	54	14	Lumberman	Pennsylvania	New York	23	34
Otsego	Farmer	New York	Canada	60	32					
Ottawa	Farmer	Netherlands	Michigan	59	22	Miller	Michigan	Ohio	22	35
Saginaw	{ Stone Mason Teacher	Michigan	London	74	19					
		Germany	Germany	61	26					
Sanilac	Farmer	Ontario	Ontario	40	20					
Shawwassee	Butcher	Michigan	Michigan	51	16	Butcher	Germany	Germany	19	30
St. Clair	Farmer	Canada	Michigan	58	25	Teamster	Michigan	Ontario	23	33
St. Joseph	Retired Life	New York	Indiana	60	c 23					
Tuscola	Farmer	Germany	Germany	59	31	Farmer	Ireland	Maine	22	39
Van Buren	Carpenter	Connecticut	Michigan	50	18					
Washtenaw	Farmer	England	Illinois	53	19	Farmer	Canada	Michigan	23	35
Wayne	Farmer	Massachusetts	Ohio	64	22	Painter	Germany	Germany	39	67

a Black.

b Color unknown.

c Mulatto.



## VITAL STATISTICS OF MICHIGAN, 1878.

TABLE XII.—Exhibiting, for the State and Counties, the Number of Marriages in Michigan during the Years 1875, 1876, 1877, and 1878, as first Returned to the State Department; the Number Returned since first compilation for the Years 1875, 1876, and 1877; for the Years 1872-1877 the Number Returned previous to December 20, 1879; the Population, 1874; Number of Inhabitants in 1874 to 1 Marriage in 1878, and the Per Cent. of Marriages in 1878 to Population in 1874.

STATE AND COUNTIES.	MARRIAGES.												Population, 1874.	Number of Inhabit- ants in 1874 to one Mar- riage in 1878.	Per Cent. of Mar- riages in 1878 to Popu- lation in 1874.	
	1872.	1873.	1874.	1875.		1876.		1877.		1878.						
	Number Re- turned previ- ous to Dec. 20, 1879.	Number Re- turned previ- ous to Dec. 20, 1879.	Number Re- turned previ- ous to Dec. 20, 1879.	Number as first Re- turned and first Com- pleted.	Number Re- turned since first Com- pleted.	Number as first Re- turned and first Com- pleted.	Number Re- turned since first Com- pleted.	Number as first Re- turned and first Com- pleted.	Number Re- turned previ- ous to Dec. 20, 1879.	Number Re- turned previ- ous to Dec. 20, 1879.						
STATE.....	10,767	11,897	12,247	11,055	743	11,798	10,858	945	11,803	11,009	646	11,655	12,221	1,334,027	109	.92
Alcona.....	8	7	10	13	.....	13	5	1	6	9	.....	9	6	1,214	202	.49
Allegan.....	251	256	278	298	.....	298	306	.....	306	266	7	273	275	32,381	118	.85
Alpena.....	58	42	62	36	11	47	41	1	42	42	2	44	54	4,807	89	1.12
Antrim.....	20	42	30	13	.....	13	24	1	25	23	.....	23	32	3,002	94	1.07
Baraga.....	.....	.....	.....	9	.....	9	11	.....	11	7	.....	7	7	a	.....	.....
Barry.....	156	187	179	172	15	187	193	12	205	210	2	212	212	22,051	104	.96
Bay.....	176	155	213	196	6	202	174	13	137	150	20	170	246	21,832	101	.99
Benzie.....	14	24	17	34	.....	34	32	.....	32	22	.....	22	21	2,653	127	.79
Berrien.....	450	434	426	388	2	390	471	14	485	356	10	365	422	35,029	83	1.20
Branch.....	259	235	309	201	2	303	281	.....	281	273	3	276	310	25,726	83	1.21
Calhoun.....	358	296	335	343	5	348	284	18	282	289	5	294	321	35,655	111	.90
Cass.....	211	226	213	180	15	195	202	13	215	175	1	176	502	20,525	102	.89
Charlevoix.....	19	17	23	21	.....	21	25	.....	25	31	.....	31	29	2,360	81	1.23
Cheboygan.....	7	23	23	16	.....	16	23	.....	23	45	.....	45	40	2,070	77	1.36

MARRIAGES—CORRECTED BY COUNTIES.

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Chippewa.....	7	10	6	12	12	10	1	11	25	23	12	2,170	181	55
Clare.....	8	15	6	19	19	7	-----	7	13	13	16	1,354	85	1.18
Clinton.....	164	204	206	195	3	198	4	203	173	14	228	23,661	104	.96
Delta.....	45	47	38	22	-----	22	27	27	44	-----	43	4,741	110	.91
Elton.....	240	215	282	247	24	271	15	274	287	5	268	26,907	101	.99
Emmet.....	9	5	23	13	1	14	1	22	26	4	55	1,272	23	4.32
Genesee.....	293	314	316	331	11	342	24	354	350	9	391	34,568	88	1.13
Gladwin.....	-----	-----	-----	2	2	-----	-----	-----	4	-----	4	265	60	1.51
Grand Traverse.....	33	32	40	53	-----	60	2	63	41	4	52	5,349	103	.97
Gratiot.....	90	140	104	141	1	143	19	112	126	2	128	13,886	104	.96
Hillsdale.....	364	340	420	370	14	384	14	372	329	3	332	31,566	85	1.18
Houghton.....	106	191	186	115	21	136	15	151	183	2	185	19,030	120	.84
Huron.....	87	90	73	111	1	112	-----	139	109	-----	109	11,964	100	1.00
Ingham.....	227	288	283	309	28	337	13	252	287	22	309	29,193	74	1.35
Ionia.....	203	296	278	252	20	272	8	270	254	8	262	28,376	103	.97
Iosco.....	46	48	22	22	-----	22	17	17	39	1	40	4,575	99	1.01
Isabella.....	44	38	62	51	1	52	3	56	49	-----	56	6,059	103	.92
Isle Royal.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Jackson.....	313	321	373	327	29	336	34	364	325	3	338	37,988	106	.94
Kalamazoo.....	348	307	319	303	9	312	16	266	249	5	302	32,284	107	.94
Kalkaska.....	5	4	9	7	-----	7	11	11	10	-----	16	1,350	42	2.38
Kent.....	556	606	633	634	22	636	123	610	517	27	541	62,671	105	.92
Keweenaw.....	12	26	35	32	1	33	40	40	25	2	27	5,411	203	.48
Lake.....	8	11	14	14	-----	14	2	12	13	-----	13	1,813	113	.88
Lapeer.....	102	190	198	193	2	195	2	197	191	2	193	25,140	110	.91
Leelanaw.....	31	44	46	33	-----	33	35	35	46	-----	46	5,031	186	.54

<sup>a</sup> Population of Baraga county is included in statement of population of Houghton county and cannot be ascertained.  
<sup>b</sup> No returns of Marriages from county clerk for 1878.

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TABLE XII.—CONTINUED.—*Marriages Corrected by Counties.*

COUNTIES.	MARRIAGES.												Popula- tion, 1874, Repre- sented by Marriages in 1878.	Number of Inhabit- ants in 1874 to one Mar- riage in 1878.	Per Cent. of Mar- riages to Popu- lation in 1874.	
	1873.			1874.			1875.			1876.						1877.
	Number Re- turned previ- ous to Dec. 20, 1879.	Number Re- turned previ- ous to Dec. 20, 1879.	Number Re- turned since first Com- ple- tion.	Number as first Re- turned and Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.	Number Re- turned since first Com- ple- tion.
Lenawee.....	503	515	491	440	42	432	339	37	426	401	18	419	408	46,084	113	.89
Livingston.....	160	134	153	153	4	157	140	5	145	156	1	157	135	20,329	151	.66
Mackinac.....	14	8	26	11	2	13	11	.....	11	17	.....	17	25	1,496	60	1.67
Macomb.....	158	217	253	192	16	208	232	3	235	228	.....	228	233	28,305	121	.82
Manistee.....	51	110	69	71	.....	71	76	.....	76	57	1	58	75	8,471	113	.89
Manitou.....	3	2	8	.....	.....	.....	.....	.....	.....	6	.....	6	11	657	60	1.67
Marquette.....	199	284	215	138	2	140	99	7	106	109	.....	109	96	21,946	229	.44
Mason.....	30	44	37	44	8	52	51	2	53	62	.....	62	71	5,351	76	1.32
Mecosta.....	85	95	89	83	.....	83	88	2	90	83	8	96	102	9,132	90	1.12
Menominee.....	17	22	19	29	.....	29	29	.....	29	32	.....	32	35	3,490	100	1.00
Midland.....	33	50	23	38	1	39	23	.....	23	37	4	41	54	4,765	88	1.13
Missaukee.....	4	4	2	5	.....	5	3	.....	3	7	.....	7	6	606	101	.99
Monroe.....	212	249	310	307	1	308	285	26	311	328	4	332	305	39,111	99	1.01
Montcalm.....	140	177	192	164	38	202	186	46	202	172	41	213	223	20,815	89	1.12
Muskegon.....	168	189	166	143	14	157	162	15	177	138	4	142	161	19,375	120	.83
Nowaygo.....	69	85	88	86	1	87	78	.....	78	87	5	92	76	8,758	115	.87
Oakland.....	309	256	299	310	8	318	325	11	326	314	9	323	291	38,052	127	.79
Oceana.....	57	43	79	69	.....	69	68	.....	68	75	.....	75	81	6,360	103	.97





EXHIBIT D.—*Number of Inhabitants to One Marriage, as stated for Different Foreign Countries, the United States, and some of the States of the Union. The Statements for Michigan include only the Inhabitants of Counties Represented by Returns of Marriages.*

COUNTRY, STATE, OR CITY.	Year for which the Statement is made.	Inhabitants to one Marriage Annually.	COUNTRY, STATE, OR CITY.	Year for which the Statement is made.	Inhabitants to one Marriage Annually.
Austria.....	.....	117	Massachusetts..... <sup>b</sup>	1870	98.9
Bavaria.....	.....	160	Massachusetts..... <sup>b</sup>	1871	94.9
Belgium.....	.....	122	Massachusetts..... <sup>b</sup>	1872	94.9
Denmark.....	.....	129	Massachusetts..... <sup>b</sup>	1873	95.6
England.....	.....	123	Massachusetts..... <sup>b</sup>	1874	103.5
Finland.....	.....	141	Massachusetts..... <sup>b</sup>	1875	121
France.....	.....	122	Massachusetts..... <sup>b</sup>	1876	133
Greece.....	.....	174	Massachusetts..... <sup>b</sup>	1877	136
Holland.....	.....	129	New Jersey..... <sup>c</sup>	1870	135
Norway.....	.....	124	New York City..... <sup>d</sup>	1869	108
Prussia.....	.....	106	New York City..... <sup>e</sup>	1870	118
Russia.....	.....	111	Michigan..... <sup>fg</sup>	1869	108
Saxony.....	.....	107	Michigan..... <sup>f</sup>	1870	120
Spain.....	.....	141	Michigan..... <sup>fg</sup>	1871	116
Sweden.....	.....	135	Michigan..... <sup>fg</sup>	1872	121
United States.....	1860	123	Michigan..... <sup>fg</sup>	1873	114
New York.....	1860	135	Michigan..... <sup>fg</sup>	1874	116
Massachusetts.....	1865	97	Michigan..... <sup>gh</sup>	1874	109
Ohio.....	.....	103	Michigan..... <sup>f</sup>	1875	118
Minnesota.....	1860	110	Michigan..... <sup>fi</sup>	1876	124
Minnesota.....	1868	107	Michigan..... <sup>fi</sup>	1877	131
Minnesota..... <sup>a</sup>	1870	116	Michigan..... <sup>i</sup>	1878	132

<sup>a</sup> Taken from Statistics of Minnesota for 1870.

<sup>b</sup> Taken from Registration Report of Massachusetts for 1877, page 19.

<sup>c</sup> There were 18 Townships from which no returns of marriages were received. Computed from data in Registration Report of New Jersey for 1870.

<sup>d</sup> Computed from data in Report of Metropolitan Board of Health for 1869.

<sup>e</sup> Computed from data in Report of Board of Health, of Health Department, for 1870.

<sup>f</sup> Marriages corrected, for additional returns, up to Dec. 20, 1879.

<sup>g</sup> Population estimated from Censuses of 1860 and 1870.

<sup>h</sup> Population as per Census of Michigan, 1874.

<sup>i</sup> Population estimated from Censuses of 1864 and 1874.

## DEATHS, 1878.

There were 12,766 deaths in Michigan in 1878, as shown by the returns of the county clerks to the State Department. This number is smaller than the number returned for the years 1877, 1873, or 1872, and larger than the number returned for the years 1876, 1875, or 1874. (See Table I., page 104.) If the number returned be increased so as to account for the number probably omitted in the enumeration, according to the compiler's method of correction, the number of deaths in this State in 1878 will appear to be 18,866,—as shown in Exhibit A, page 107. By the above-mentioned method of correction, it is found that, for 1878, the number returned should be increased by 47.87 per cent. in order to equal the number which probably occurred.

The average number of deaths during each of certain specified periods of time in 1878, including unknown month, is as follows:

PERIODS OF TIME.	Deaths as Returned.	Corrected as per Exhibit C, 4th line.
Per quarter.....	3,191.50	4,716.50
Per month.....	1,063.83	1,572.17
Per week.....	245.50	362.81
Per day.....	84.98	51.69

### THE DEATH-RATE IN MICHIGAN.

The following tabular exhibit shows the death-rate in Michigan for the year 1878. The statement is made for the deaths as returned and as corrected for omissions in the enumeration. The probable death-rate in the State for the year is 1.42 per cent., or 14.2 per thousand.

	Inhabitants in 1874 Represented by Deaths in 1878.	Deaths as Returned.	Deaths Corrected for Omissions in Enumerating.	PER CENT. OF DEATHS TO INHABITANTS.	
				Deaths as Returned.	Deaths Corrected for Omissions.
Total.....	1,324,761	12,766	18,842	.96	1.42

Table I. shows, by quarters of the year, the number and proportion of deaths returned, and as corrected for omissions, for each of the years 1873-1878. The year 1878 is the only one in the table which shows a larger proportion for the last quarter than for the quarter ending with September. When the deaths are corrected for omissions in the enumeration, the quarter ending with September has the largest number of deaths.

TABLE I.—*Deaths Returned as having occurred in Michigan by Quarters of the Year, Exhibiting the Number and Per Cent. of Total as Returned and as Corrected for each of the Years 1873 to 1878, inclusive.*

TOTALS, AND MONTHS WITH WHICH QUARTERS END.		1873.		1874.		1875.		1876.		1877.		1878.	
		Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.	Num-ber.	Per Ct. of Total.
Totals.....		14,238	100.00	12,500	100.00	11,990	100.00	12,576	100.00	12,919	100.00	12,766	100.00
As Returned.	March.....	3,211	22.52	2,246	17.97	2,679	22.34	2,460	19.56	2,599	20.12	2,449	19.18
	June.....	3,335	23.39	3,039	24.31	2,833	23.63	2,803	22.29	2,829	21.90	2,822	22.10
	Sept.....	4,182	29.33	3,870	30.96	3,334	27.81	4,009	31.88	3,999	30.95	3,731	29.23
	Dec.....	3,461	24.28	3,299	26.39	3,073	25.62	3,273	26.02	3,436	26.60	3,740	29.30
	Unknown	69	.48	46	.37	71	.59	31	.25	56	.43	24	.19
Average.....		3,564.50	25.00	3,125.00	25.00	2,997.50	25.00	3,144.00	25.00	3,229.75	25.00	3,191.50	25.00
Totals.....		20,312	100.00	20,090	100.00	17,289	100.00	18,389	100.00	18,341	100.00	18,886	100.00
As Corrected for Omissions.	March..	5,190	25.55	4,288	21.34	4,409	25.50	4,153	22.58	4,227	23.05	4,217	22.35
	June....	4,998	24.61	5,281	26.29	4,315	24.96	4,364	23.73	4,259	23.22	4,468	23.68
	Sept.....	5,729	28.20	5,963	29.68	4,621	26.73	5,661	30.78	5,495	29.96	5,340	28.80
	Dec.....	4,326	21.30	4,512	22.46	3,873	22.40	4,180	22.73	4,304	23.47	4,817	25.53
	Unk.....	69	.34	46	.23	71	.41	31	.17	56	.30	24	.13
Average..... <sup>a</sup>		5,078	25.00	5,023	25.00	4,322	25.00	4,597	25.00	4,585	25.00	4,717	25.00

<sup>a</sup> Including deaths in unknown month.

In Table II. the months are arranged in the order of those first which had the greatest number of deaths. August heads the list for each year except 1874, and January shows the least number in each year.



## DEATHS BY MONTHS.

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TABLE II.—Deaths in Michigan, Exhibiting, by Months, the Number and Per Cent. of Total Returned for each of the Years 1873 to 1878, inclusive, the months arranged in order by Number of Deaths, the Greatest Number first.

Order	1873.			1874.			1875.			1876.			1877.			1878.		
	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.
	Year...	14,283	100.00	Year...	12,500	100.00	Year...	11,990	100.00	Year...	12,576	100.00	Year...	12,919	100.00	Year...	12,766	100.00
1	Aug....	1,535	10.77	Sept....	1,517	12.14	Aug....	1,222	10.19	Aug....	1,507	11.98	Aug....	1,509	12.07	Aug....	1,371	10.74
2	Sept....	1,471	10.32	Aug....	1,388	11.10	Sept....	1,219	10.17	Sept....	1,423	11.32	Sept....	1,400	10.84	Dec....	1,369	10.72
3	Oct....	1,258	8.83	Oct....	1,211	9.69	Oct....	1,080	9.01	Dec....	1,153	9.17	Oct....	1,221	9.45	Sept....	1,343	10.52
4	Mar....	1,243	8.75	Dec....	1,120	8.96	Dec....	1,065	8.88	Oct....	1,131	8.99	Dec....	1,155	8.94	Oct....	1,190	9.32
5	July....	1,176	8.25	April...	1,102	8.81	Mar....	1,045	8.72	July....	1,079	8.98	Nov....	1,060	8.20	Nov....	1,181	9.25
6	April...	1,174	8.23	May....	1,071	8.57	May....	1,022	8.52	Nov....	989	7.86	July....	1,040	8.05	April...	1,029	8.06
7	Dec....	1,136	7.97	Nov....	968	7.74	April...	1,003	8.37	April...	978	7.78	Mar....	990	7.66	July....	1,017	7.97
8	May....	1,121	7.87	July....	965	7.72	Nov....	928	7.74	Mar....	975	7.75	April...	978	7.57	Mar....	939	7.28
9	Feb....	1,104	7.74	Mar....	913	7.35	Feb....	898	7.49	May....	970	7.71	May....	976	7.55	May....	923	7.23
10	Nov....	1,067	7.49	June....	866	6.93	July....	893	7.45	June...	855	6.89	June...	875	6.77	June...	870	6.82
11	June...	1,040	7.30	Feb....	672	5.38	June...	808	6.74	Feb....	890	6.36	Feb....	843	6.53	Feb....	789	6.18
12	Jan....	889	6.02	Jan....	655	5.24	Jan....	736	6.14	Jan....	685	5.45	Jan....	766	5.93	Jan....	730	5.72
	Unk....	69	.48	Unk....	46	.37	Unk....	71	.59	Unk....	31	.25	Unk....	56	.43	Unk....	24	.19
	AV....	1,183.17	8.33	AV....	1,011.67	8.33	AV....	999.17	8.33	AV....	1,048.00	8.33	AV....	1,076.58	8.33	AV....	1,063.83	8.33



In each month of 1878, except March, there were more deaths of males than of females, as shown by Table III. The excess of males over females for the year was 4.32 per cent. The numbers in Table III. are as returned by the county clerks.

TABLE III.—*Number and Per Cent. of Deaths of Males and of Females from all Causes, as Returned, by Months. (Unknown sex excluded.)*

YEAR AND MONTHS, 1878.	DEATHS AS RETURNED, 1878.		PER CENT. OF EACH SEX TO TOTAL OF BOTH SEXES.				Males to 100 Fe- males.
	Males.	Fe- males.	Males.	Fe- males.	EXCESS OF THE SEXES.		
					Males.	Females.	
YEAR 1878 .....	6,632	6,082	52.16	47.84	4.32	-----	109
January .....	369	356	50.90	49.10	1.80	-----	104
February .....	407	379	51.78	48.22	3.56	-----	107
March .....	461	466	49.73	50.27	-----	.54	99
April .....	532	459	55.04	44.96	10.08	-----	122
May .....	484	437	52.55	47.45	5.10	-----	111
June .....	441	427	50.81	49.19	1.62	-----	103
July .....	528	488	51.97	48.03	3.94	-----	106
August .....	726	642	53.07	46.93	6.14	-----	113
September .....	691	645	51.72	48.28	3.44	-----	107
October .....	607	577	51.27	48.73	2.54	-----	105
November .....	617	562	52.33	47.67	4.66	-----	110
December .....	727	632	53.50	46.50	7.00	-----	115
Unknown .....	12	12	50.00	50.00	-----	-----	

Exhibit A shows, by sex, the number of deaths in 1878, by months equalized to uniform length. As thus equalized, the largest proportion is shown for the month of September, and the largest excess of males is shown for April.

EXHIBIT A.—*By Sex, the Number of Deaths Returned as having occurred in Michigan during the Year 1878, by Months Equalized to 30.44 days each;—Number of Deaths in each Month; Per Cent. of Deaths in each Month to Total Deaths during the Year; and Per Cent. and Excess of Per Cent. of Deaths of each Sex to Total of both Sexes.*

YEAR AND MONTHS, 1878.	NUMBER OF DEATHS, AS EQUALIZED, 1878.				PER CT. OF DEATHS IN EACH MONTH TO TOTAL DURING THE YEAR.				PER CT. OF EACH SEX TO TOTAL OF BOTH SEXES, UNKNOWN SEX EX- CLUDED.			
	Total.	Males.	Fe- males.	Unk.	Total.	Males.	Fe- males.	Unk.	Males.	Fe- males.	EXCESS.	
											Males.	Fe- males.
YEAR 1878..	12,766	6,632	6,082	52	100.00	100.00	100.00	100.00	52.16	47.84	4.32	.....
January ...	717	392	350	5	5.62	5.46	5.75	9.61	50.84	49.16	1.68	.....
February ..	858	443	412	3	6.72	6.68	6.77	5.77	51.81	48.19	3.62	.....
March.....	914	453	458	3	7.16	6.83	7.53	5.77	49.73	50.27	.....	.54
April.....	1,044	570	466	8	8.18	8.59	7.66	15.38	55.02	44.98	10.04	.....
May.....	906	475	429	2	7.10	7.10	7.05	3.85	52.51	47.46	5.08	.....
June.....	883	448	433	2	6.92	6.75	7.12	3.85	50.85	49.15	1.70	.....
July.....	939	519	479	1	7.82	7.83	7.88	1.92	52.00	48.00	4.00	.....
August.....	1,346	713	630	3	10.54	10.75	10.36	5.77	53.09	46.91	6.18	.....
September..	1,363	701	655	7	10.68	10.57	10.77	13.46	51.70	48.30	3.40	.....
October....	1,169	596	567	6	9.16	8.99	9.32	11.54	51.25	48.75	2.50	.....
November..	1,198	626	570	2	9.38	9.44	9.37	3.85	52.34	47.66	4.68	.....
December..	1,345	714	621	10	10.53	10.77	10.21	19.23	53.48	46.52	6.96	.....
Unknown..	24	12	12	.....	.19	.18	.20	.....	50.00	50.00	.....	.....
Average ..*	1,062	552	506	4	8.33	8.33	8.33	8.33	52.05	47.95	.....	.....

\* Unknown month excluded.





HIBIT C.—Deaths in Michigan during the Year 1878, as Returned, as Corrected for Omissions in Enumerating, the same Equalized for Increase of Population during the Year covered by the Returns, and the Deaths as thus Corrected and Equalized for the several Months, Equalized to Months of a uniform length of 30.44 days; also, indicating some of the steps by which these results have been reached.

MONTHS, 1873.													
TOTAL <sup>a</sup>	Jan.	Feb.	Mar.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Deaths as returned by Registration Officers.....	730	789	930	1,029	923	870	1,017	1,371	1,343	1,190	1,181	1,363	
Per cent. of deaths to be added for correction for time elapsing before enumeration.....	77.44	72.60	67.76	62.92	58.08	53.24	48.40	43.56	38.72	33.88	29.04	24.20	
Number of deaths to be added for above correction.....	6,100	565	573	647	536	463	492	597	520	403	343	331	
Deaths, if enumerated in months of occurrence.....	18,842	1,295	1,392	1,560	1,459	1,333	1,509	1,968	1,863	1,593	1,524	1,700	
Per cent. of deaths to be added to equalize them to population at close of year.....	4.21	3.86	3.51	3.16	2.81	2.46	2.11	1.76	1.41	1.06	.71	.35	
Deaths to be added to equalize them to population at close of year.....	471	55	53	53	41	33	32	35	26	17	11	60	
Deaths, as corrected, equalized to population at close of year.....	19,313	1,350	1,415	1,615	1,500	1,366	1,541	2,003	1,889	1,610	1,535	1,760	
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....		-.56	+ 2.44	-.56	+ 44	-.56	+ 44	-.56	+ 44	-.56	+ 44	-.56	
Number by which the deaths should be increased or diminished to equalize them to months of uniform length.....		+ 14	+ 123	-29	+ 25	-27	+ 20	-28	+ 28	-20	+ 23	-32	
Deaths, corrected and equalized, equalized to months of uniform length..	19,327	1,326	1,538	1,586	1,473	1,386	1,513	1,967	1,917	1,581	1,538	1,728	

<sup>a</sup> Excluding 24 in unknown month.



EXHIBIT D.—Deaths during the Years 1875 to 1878, inclusive, as Corrected for Omissions in the Enumeration, Exhibiting the Number and Per Cent. of Total, by Months arranged in Order by Number, Months having the greatest number first.

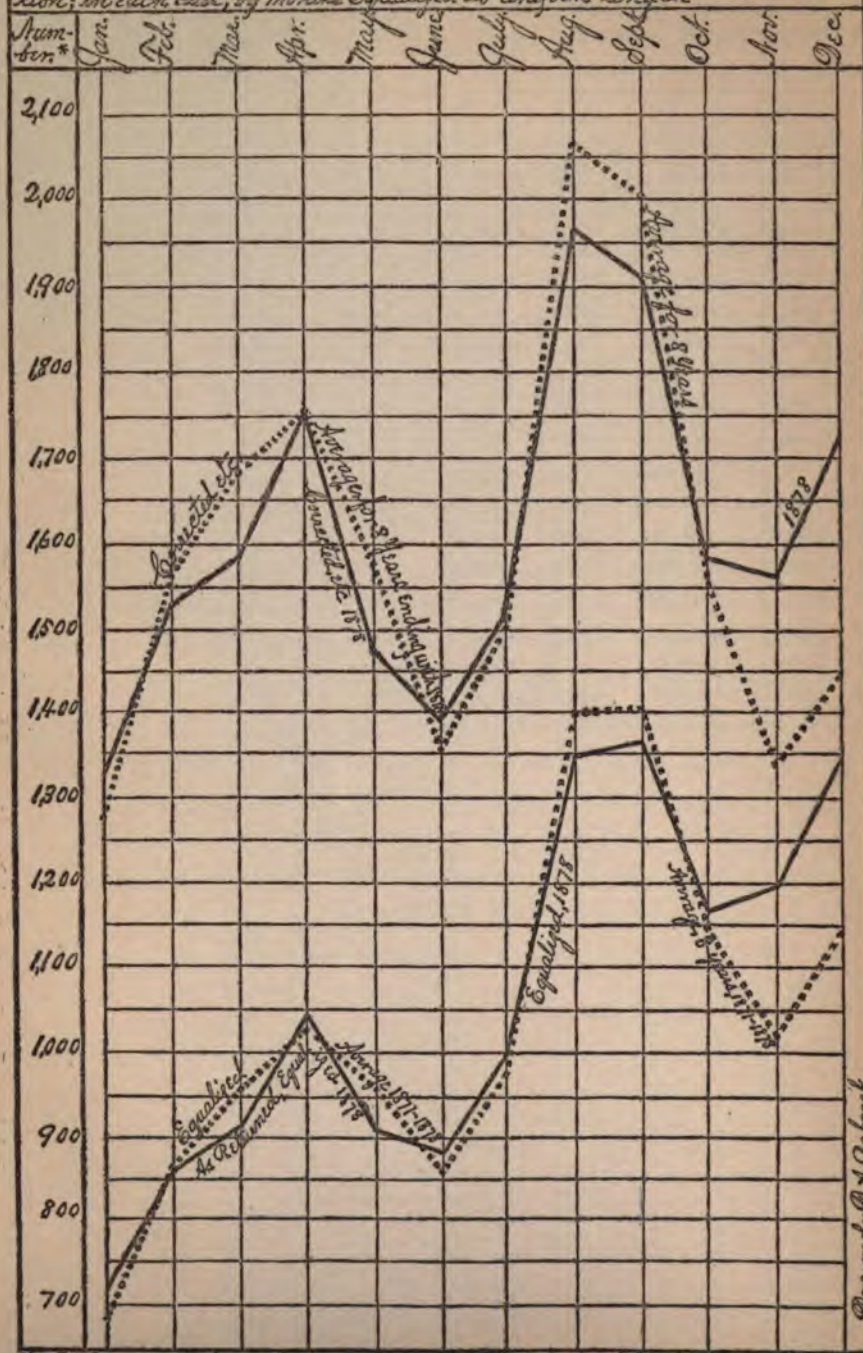
ORDER.	1875.			1876.			1877.			1878.		
	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.
	Total...	17,289	100.00	Total...	18,389	100.00	Total...	18,341	100.00	Total...	18,866	100.00
1	Aug.....	1,699	9.83	Aug.....	2,134	11.60	Aug....	2,148	11.71	Aug.....	1,968	10.43
2	Mar.....	1,680	9.72	Sept....	1,949	10.60	Sept..	1,870	10.20	Sept....	1,863	9.87
3	Sept....	1,642	9.50	Mar.....	1,606	8.73	Oct....	1,580	8.61	Dec.....	1,700	9.01
4	Apr.....	1,568	9.07	July.....	1,578	8.58	Mar....	1,572	8.57	Apr.....	1,676	8.86
5	May.....	1,554	8.99	Apr.....	1,566	8.52	Apr....	1,512	8.24	Oct.....	1,593	8.44
6	Feb.....	1,482	8.57	May.....	1,508	8.20	July..	1,477	8.05	Mar.....	1,560	8.27
7	Oct.....	1,408	8.14	Oct.....	1,497	8.14	May...	1,468	8.00	Nov.....	1,524	8.08
8	Dec.....	1,296	7.50	Dec.....	1,420	7.72	Dec....	1,397	7.62	July.....	1,509	8.00
9	July.....	1,280	7.40	Feb.....	1,355	7.37	Feb....	1,374	7.49	May.....	1,459	7.73
10	Jan.....	1,247	7.21	June....	1,290	7.01	Nov....	1,327	7.24	Feb.....	1,362	7.23
11	June....	1,193	6.90	Nov.....	1,263	6.87	Jan....	1,281	6.98	June....	1,333	7.07
12	Nov.....	1,169	6.76	Jan.....	1,192	6.48	June..	1,279	6.97	Jan.....	1,295	6.86
	Unk. ....	71	.41	Unk. ....	31	.17	Unk. ..	56	.31	Unk. ....	24	.13
	Av..... <sup>a</sup>	1,441	8.33	Av..... <sup>a</sup>	1,532	8.33	Av..... <sup>a</sup>	1,528	8.33	Av..... <sup>a</sup>	1,572	8.33

<sup>a</sup> Including deaths in unknown month.



# Diagram No. 3.

Deaths in Michigan in 1878, and Average for 8 Years ending with 1878, as Returned, and as Corrected for Omissions and Equalized for Increase of Population; in each case, by month Equalized to uniform length.



\* Scale 224 to the inch.

Designed by Henry A. Baker.

Drawn by A. A. Baker.

IBIT E.—Deaths in Michigan during the Year 1878, as Returned, as Corrected for Omissions in Enumerating, and as thus Corrected, Equalized to Months of uniform length of 30.44 days each.

	MONTHS, 1878.											
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
TOTAL.												
Deaths as returned by Registration Officers.	12,742	730	930	1,029	923	870	1,017	1,371	1,343	1,190	1,181	1,339
Per cent. of deaths to be added for correction for time elapsing before enumeration.	77.44	72.86	67.76	62.92	58.08	53.34	48.40	43.56	38.72	33.88	29.04	24.20
Number of deaths to be added for above correction.	6,100	565	630	647	538	463	492	597	520	403	343	331
Deaths, if enumerated in months of occurrence.	18,842	1,295	1,560	1,676	1,459	1,333	1,509	1,968	1,863	1,593	1,524	1,700
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.												
Number by which the deaths should be increased or diminished to equalize them to months of uniform length.		—56	+2.44	—56	—56	+44	—56	—56	+44	—56	+44	—56
	+13	—23	+119	+25	—26	+20	—27	—36	+27	—29	+22	—31
Deaths, corrected and equalized to months of uniform length.	18,855	1,272	1,481	1,701	1,433	1,353	1,482	1,932	1,890	1,564	1,546	1,609

\* Excluding 24 in unknown month.



Table IV. contains data concerning deaths in Michigan in 1878, by sex and by age of decedents. It may be seen that 25.22 per cent. of all the decedents were under one year of age, and 39.32 per cent. were under five years of age. There was an excess of deaths of males under five years of age; from 5 to 45 years, the excess was of females; from 45 to 85 years, the excess was of males; and over 85 years, the excess was of females.

TABLE IV.—*Exhibiting, by Sex, and by Age in Periods of Years, the Number and Proportion of Persons Returned as having Died in Michigan during the Year 1878; also the Excess of Persons of each Sex.*

AGES IN YEARS AND PERIODS.	NUMBER OF DEATHS, 1878.				PER CT. OF DEATHS AT EACH AGE TO TOTAL AT ALL AGES.			PER CT. OF EACH SEX TO TOTAL OF BOTH SEXES.				EXCESS OF THE SEXES BY NUMBER.		Males to 100 Fe- males.
	Total.	Males.	Fe- males.	Unk.	Total.	Males.	Fe- males.	Males.	Fe- males.	Excess.		Males.	Fe- males.	
										Males.	Fe- males.			
All Ages...	12,766	6,632	6,082	52	100.00	100.00	100.00	52.16	47.84	4.32	-----	550	-----	109.04
Under 1....	3,219	1,766	1,405	48	25.22	26.63	23.10	55.69	44.31	11.38	-----	361	-----	125.69
1 to 2.....	739	395	343	1	5.79	5.96	5.64	53.52	46.48	7.04	-----	52	-----	115.16
2 to 3.....	470	244	226	-----	3.68	3.68	3.72	51.91	48.09	3.82	-----	18	-----	107.96
3 to 4.....	339	160	179	-----	2.66	2.41	2.94	47.20	52.80	-----	5.60	-----	19	89.39
4 to 5.....	240	133	107	-----	1.88	2.01	1.76	55.42	44.58	10.84	-----	26	-----	124.90
under 5....	5,007	2,698	2,260	49	39.22	40.68	37.16	54.42	45.58	8.84	-----	438	-----	119.28
5 to 10.....	791	385	406	-----	6.20	5.80	6.67	48.67	51.33	-----	2.66	-----	21	94.83
10 to 15....	418	198	220	-----	3.27	2.99	3.62	47.37	52.63	-----	5.26	-----	22	90.00
15 to 20....	490	204	286	-----	3.84	3.08	4.70	41.63	58.37	-----	16.74	-----	82	71.33
20 to 25....	564	253	311	-----	4.42	3.81	5.11	44.88	55.14	-----	10.28	-----	58	81.35
25 to 30....	512	224	288	-----	4.01	3.38	4.73	43.75	56.25	-----	12.50	-----	64	77.78
30 to 35....	438	190	248	-----	3.43	2.86	4.08	43.38	56.62	-----	13.24	-----	58	76.61
35 to 40....	416	191	225	-----	3.26	2.88	3.70	45.91	54.09	-----	8.18	-----	34	81.89
40 to 45....	391	185	206	-----	3.06	2.79	3.39	47.31	52.69	-----	5.38	-----	21	89.81
45 to 50....	391	209	182	-----	3.06	3.15	2.99	53.45	46.55	6.90	-----	27	-----	114.84
50 to 55....	383	214	169	-----	3.00	3.23	2.78	55.87	44.13	11.74	-----	45	-----	126.63
55 to 60....	444	253	191	-----	3.48	3.81	3.14	56.98	43.02	13.96	-----	62	-----	132.46
60 to 65....	439	264	175	-----	3.44	3.98	2.88	60.14	39.86	20.28	-----	80	-----	150.86
65 to 70....	508	300	208	-----	3.98	4.52	3.42	59.06	40.94	18.12	-----	92	-----	144.23
70 to 75....	454	273	181	-----	3.56	4.12	2.98	60.13	39.87	20.26	-----	92	-----	150.83
75 to 80....	427	227	200	-----	3.34	3.42	3.29	53.16	46.84	6.32	-----	27	-----	113.50
80 to 85....	264	146	118	-----	2.07	2.20	1.94	55.30	44.70	10.60	-----	28	-----	123.73
85 to 90....	156	72	84	-----	1.22	1.09	1.38	46.15	53.85	-----	7.70	-----	12	85.71
90 to 95....	48	23	25	-----	.38	.35	.41	47.92	52.08	-----	4.16	-----	2	92.00
95 to 100....	16	5	11	-----	.13	.08	.18	31.25	68.75	-----	37.50	-----	6	45.45
100 and over	8	4	4	-----	.06	.06	.07	50.00	50.00	-----	-----	-----	-----	100.00
Unk. Ages.	201	114	84	-----	1.57	1.72	1.38	57.58	42.42	15.16	-----	30	-----	135.71

## DEATHS BY AGES.

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EXHIBIT F.—*Decedents in Michigan in 1878, by Sex, and Excess of the Sexes, by Age in Years.*

AGE IN YEARS.	DECEDENTS, 1878.				EXCESS.		AGE IN YEARS.	DECEDENTS, 1878.				EXCESS.	
	Total.	Males.	Fe- males.	Unk.	Males.	Fe- males.		Total.	Males.	Fe- males.	Unk.	Males.	Fe- males.
All Ages....	12,766	6,632	6,032	52	550	.....	35.....	116	54	62	.....	.....	8
Under 1.....	3,219	1,766	1,405	48	361	.....	36.....	83	34	49	.....	.....	15
1.....	739	395	343	1	52	.....	37.....	61	27	34	.....	.....	7
2.....	470	244	226	.....	18	.....	38.....	80	33	47	.....	.....	14
3.....	339	160	179	.....	.....	19	39.....	76	43	33	.....	10	.....
4.....	240	133	107	.....	26	.....	40.....	95	48	47	.....	1	.....
5.....	220	108	112	.....	.....	4	41.....	58	28	30	.....	.....	2
6.....	167	69	98	.....	.....	29	42.....	93	36	57	.....	.....	21
7.....	150	72	78	.....	.....	6	43.....	75	33	42	.....	.....	9
8.....	143	70	73	.....	.....	3	44.....	70	40	30	.....	10	.....
9.....	111	66	45	.....	21	.....	45.....	91	45	46	.....	.....	1
10.....	82	39	43	.....	.....	4	46.....	74	38	36	.....	2	.....
11.....	103	51	52	.....	.....	1	47.....	75	37	38	.....	.....	1
12.....	91	45	46	.....	.....	1	48.....	91	57	34	.....	23	.....
13.....	72	31	41	.....	.....	10	49.....	60	32	28	.....	4	.....
14.....	70	32	38	.....	.....	6	50.....	96	55	41	.....	14	.....
15.....	84	38	46	.....	.....	8	51.....	51	28	23	.....	5	.....
16.....	80	39	42	.....	.....	4	52.....	95	57	38	.....	19	.....
17.....	99	33	66	.....	.....	33	53.....	68	34	34	.....	.....	.....
18.....	120	57	63	.....	.....	6	54.....	73	40	33	.....	7	.....
19.....	107	38	69	.....	.....	31	55.....	96	57	39	.....	18	.....
20.....	116	55	61	.....	.....	6	56.....	98	50	48	.....	2	.....
21.....	92	42	50	.....	.....	8	57.....	83	49	34	.....	15	.....
22.....	125	56	69	.....	.....	13	58.....	93	49	44	.....	5	.....
23.....	122	56	66	.....	.....	10	59.....	74	48	26	.....	22	.....
24.....	109	44	65	.....	.....	21	60.....	89	54	35	.....	19	.....
25.....	106	48	58	.....	.....	10	61.....	63	35	28	.....	7	.....
26.....	118	46	72	.....	.....	26	62.....	87	49	38	.....	11	.....
27.....	89	41	48	.....	.....	7	63.....	102	67	35	.....	32	.....
28.....	133	63	70	.....	.....	7	64.....	98	59	39	.....	20	.....
29.....	66	26	40	.....	.....	14	65.....	108	69	39	.....	30	.....
30.....	100	33	61	.....	.....	22	66.....	97	53	44	.....	9	.....
31.....	73	38	35	.....	3	.....	67.....	101	60	41	.....	19	.....
32.....	80	34	46	.....	.....	12	68.....	110	69	41	.....	28	.....
33.....	99	41	58	.....	.....	17	69.....	92	49	43	.....	6	.....
.....	86	38	48	.....	.....	10	70.....	107	62	45	.....	17	.....
.....	.....	.....	.....	.....	.....	.....	71.....	74	46	28	.....	18	.....



EXHIBIT F.—CONTINUED.—*Deaths by Ages in Michigan in 1878.*

AGE IN YEARS.	DECEDENTS, 1878.				EXCESS.		AGE IN YEARS.	DECEDENTS, 1878.				EXCESS.	
	Total.	Males.	Fe- males.	Unk.	Males.	Fe- males.		Total.	Males.	Fe- males.	Unk.	Males.	Fe- males.
72.....	106	63	43	.....	20	.....	90.....	23	11	12	.....	.....	1
73.....	81	45	36	.....	9	.....	91.....	11	5	6	.....	.....	1
74.....	86	57	29	.....	28	.....	92.....	6	2	4	.....	.....	2
75.....	104	52	52	.....	.....	.....	93.....	5	4	1	.....	3	.....
76.....	82	48	34	.....	14	.....	94.....	3	1	2	.....	.....	1
77.....	65	33	32	.....	1	.....	95.....	5	2	3	.....	.....	1
78.....	104	55	49	.....	6	.....	96.....	2	2	.....	.....	2	.....
79.....	72	39	33	.....	6	.....	97.....	3	.....	3	.....	.....	3
80.....	67	39	28	.....	11	.....	98.....	5	1	4	.....	.....	3
81.....	47	24	23	.....	1	.....	99.....	1	.....	1	.....	.....	1
82.....	58	28	30	.....	.....	2	100.....	2	1	1	.....	.....	.....
83.....	34	20	14	.....	6	.....	102.....	2	1	1	.....	.....	.....
84.....	58	35	23	.....	12	.....	103.....	1	.....	1	.....	.....	1
85.....	33	16	17	.....	.....	1	104.....	1	1	.....	.....	1	.....
86.....	36	16	20	.....	.....	4	107.....	1	.....	1	.....	.....	1
87.....	33	18	15	.....	3	.....	116.....	1	1	.....	.....	1	.....
88.....	30	11	19	.....	.....	8	Unknown.	201	114	84	3	30	.....
89.....	24	11	13	.....	.....	2							

Exhibit G furnishes data for the study of the influence of seasons of year upon deaths of persons at different periods of life. Of the decedents at all ages in August, 31.87 per cent. were under one year of age, 47.70 per cent. were under five years of age, 4.52 were aged 5 to 10 years, and so on down the August column. The lines headed "Per Cent of Deaths, 1878" are read from left to right; for instance, of the 3,218 decedents aged under one year, 5.38 per cent. died in January, 5.72 per cent. in February, 7.30 per cent. in March, etc. The decedents under one year of age show the largest proportion in August as compared with the other months of the year. In April the greatest mortality seems to have been among persons aged 50 years and over, and in October the greatest proportionate mortality appears for decedents aged 20 to 50 years.

EXHIBIT G.—The Relation of the Deaths at Different Periods of Age to Deaths at All Ages, by Months; and for the same Periods of Age, the Relation of the Deaths in each Month to the Deaths in the Year 1878, according to the Returns.

DEATHS BY AGES IN PERIODS OF YEARS.		YEAR, 1878.*	MONTHS, 1878.											
			Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
All Ages.....		12,742	730	789	930	1,029	923	870	1,017	1,371	1,343	1,190	1,181	1,369
Under 1.....		8,218	173	184	235	252	213	223	289	437	342	278	248	344
Per Cent. of All Ages.....		25.26	23.70	23.32	25.27	24.49	23.08	25.63	28.42	31.87	25.47	23.36	21.00	25.13
Per Cent. of Deaths, 1878.....		100.00	5.38	5.72	7.30	7.83	6.62	6.93	8.98	13.58	10.63	8.64	7.71	10.69
Under 5.....		5,004	290	290	355	377	329	319	419	654	541	450	432	542
Per Cent. of All Ages.....		39.27	39.73	36.76	38.17	36.64	35.64	36.67	41.20	47.70	40.23	38.32	36.58	32.19
Per Cent. of Deaths, 1878.....		100.00	5.80	5.80	7.09	7.53	6.57	6.37	8.37	13.07	10.51	9.11	8.63	10.83
5 to 10.....		790	38	59	56	58	48	40	42	62	99	85	98	105
Per Cent. of All Ages.....		6.20	5.21	7.48	6.02	5.64	5.20	4.60	4.13	4.52	7.37	7.14	8.30	7.67
Per Cent. of Deaths, 1878.....		100.00	4.81	7.47	7.09	7.34	6.08	5.06	5.32	7.85	12.53	10.76	12.41	13.29
10 to 20.....		908	52	59	53	72	59	58	88	96	88	95	82	106
Per Cent. of All Ages.....		7.13	7.12	7.48	5.70	7.00	6.39	6.67	8.65	7.00	6.55	7.98	6.94	7.74
Per Cent. of Deaths, 1878.....		100.00	5.73	6.50	5.84	7.93	6.50	6.39	9.69	10.57	9.69	10.46	9.03	11.67
20 to 50.....		2,707	164	164	228	217	215	192	246	244	269	257	253	258
Per Cent. of All Ages.....		21.24	22.47	20.79	24.52	21.09	23.29	22.07	24.19	17.80	20.03	21.60	21.42	18.85
Per Cent. of Deaths, 1878.....		100.00	6.06	6.06	8.42	8.02	7.94	7.09	9.69	9.01	9.94	9.49	9.35	9.53
50 and over.....		3,142	176	201	222	236	229	241	212	227	330	285	297	336
Per Cent. of All Ages.....		24.66	24.11	25.43	23.87	27.79	28.06	27.70	20.85	21.66	24.57	23.95	25.15	24.34
Per Cent. of Deaths, 1878.....		100.00	5.60	6.40	7.07	9.10	8.24	7.67	6.75	9.45	10.50	9.07	9.45	10.69
Unknown Ages..		191	10	16	16	19	13	20	10	18	16	12	19	22
Per Cent. of All Ages.....		1.50	1.37	2.03	1.72	1.85	1.41	2.30	.98	1.31	1.19	1.01	1.61	1.61
Per Cent. of Deaths, 1878.....		100.00	5.24	8.38	8.38	9.95	6.81	10.47	5.24	9.42	8.38	6.28	9.95	11.52

\* Excluding unknown month.



TABLE V.—*Exhibiting, by Sex and by Age in Periods of Years, the Number of Persons Returned as having Died in Michigan during the Year, and in each Month of the Year 1878.*

AGES IN PERIODS OF YEARS.		SEX.	YEAR, 1878.	MONTHS, 1878.												
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
All Ages.....	Total.....		12,766	730	789	930	1029	923	870	1017	1371	1343	1190	1181	1369	24
	Males.....		6,632	369	407	461	562	484	441	528	726	691	607	617	727	12
	Females.....		6,082	356	379	466	459	437	427	488	642	645	577	562	632	12
	Unknown.....		52	5	3	3	8	2	2	1	3	7	6	2	10	....
All Under 1.....	Total.....		3,219	173	184	235	252	213	223	289	437	342	278	248	344	1
	Males.....		1,766	105	92	119	137	112	115	164	244	196	152	136	194	....
	Females.....		1,405	63	89	113	108	99	106	124	191	141	120	110	140	1
	Unknown.....		48	5	3	3	7	2	2	1	2	5	6	2	10	....
All Under 5.....	Total.....		5,007	290	290	355	377	329	319	419	654	541	456	432	542	3
	Males.....		2,698	165	151	178	214	172	165	217	349	305	249	227	305	1
	Females.....		2,260	120	136	174	156	155	152	201	303	230	201	203	227	2
	Unknown.....		49	5	3	3	7	2	2	1	2	6	6	2	10	....
5 to 10.....	Total.....		791	38	59	56	58	48	40	42	62	99	85	98	105	1
	Males.....		385	12	25	22	33	23	23	20	35	51	41	48	52	....
	Females.....		406	26	34	34	25	25	17	22	27	48	44	50	53	1
10 to 15.....	Total.....		418	22	21	26	36	29	20	43	41	36	44	40	60	....
	Males.....		198	11	15	9	17	13	9	28	19	14	18	23	22	....
	Females.....		220	11	6	17	19	16	11	15	22	22	26	17	38	....
15 to 20.....	Total.....		490	30	38	27	36	30	38	45	55	52	51	42	46	....
	Males.....		204	6	18	12	14	10	18	21	23	24	18	19	21	....
	Females.....		286	24	20	15	22	20	20	24	32	28	33	23	25	....
20 to 25.....	Total.....		564	32	20	46	51	54	38	52	55	54	50	54	56	2
	Males.....		253	20	9	20	21	30	17	23	25	18	20	26	23	1
	Females.....		311	12	11	26	30	24	21	29	30	36	30	28	33	1
25 to 30.....	Total.....		512	34	39	42	40	36	40	34	43	56	45	46	57	....
	Males.....		224	15	16	18	17	18	14	16	21	23	22	22	22	....
	Females.....		288	19	23	24	23	18	26	18	22	33	23	24	35	....
30 to 35.....	Total.....		438	19	35	37	33	34	27	37	42	49	40	49	34	2
	Males.....		190	6	18	17	16	6	16	13	22	19	13	27	16	1
	Females.....		248	13	17	20	17	28	11	24	20	30	27	22	18	1
35 to 40.....	Total.....		416	30	23	45	42	28	24	35	32	36	43	40	37	1
	Males.....		191	13	12	22	22	14	11	15	16	14	19	17	16	....
	Females.....		225	17	11	23	20	14	13	20	16	22	24	23	21	1
40 to 45.....	Total.....		391	20	24	29	25	35	28	47	42	37	36	32	36	....
	Males.....		185	6	8	17	13	12	15	21	19	23	18	14	19	....
	Females.....		206	14	16	12	12	23	13	26	23	14	18	18	17	....

TABLE V.—CONTINUED.—*Deaths by Periods of Age, by Sex, by Months.*

AGES IN PERIODS OF YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												Unk.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
45 to 50.	Total.....	391	29	23	29	26	28	35	41	30	37	43	32	38	....
	Males.....	209	17	13	15	17	17	17	24	13	18	22	15	19	....
	Females.....	182	12	10	14	9	11	18	17	15	19	21	17	19	....
50 to 55.	Total.....	383	24	27	19	36	22	29	36	36	49	31	30	44	....
	Males.....	214	12	16	14	21	13	14	21	23	28	18	15	19	....
	Females.....	169	12	11	5	15	9	15	15	13	21	13	15	25	....
55 to 60.	Total.....	444	19	25	43	36	29	43	33	46	41	42	40	47	....
	Males.....	253	6	15	24	20	21	21	20	29	22	25	24	26	....
	Females.....	191	13	10	19	16	8	22	13	17	19	17	16	21	....
60 to 65.	Total.....	439	19	32	34	52	45	36	26	44	39	39	36	36	1
	Males.....	294	10	20	17	34	29	22	17	26	21	22	23	23	....
	Females.....	175	9	12	17	18	16	14	9	18	18	17	13	13	1
65 to 70.	Total.....	508	33	34	41	56	42	31	36	35	54	43	51	51	1
	Males.....	300	23	18	21	32	24	14	21	24	30	27	23	42	1
	Females.....	208	10	16	20	24	18	17	15	11	24	16	28	9	....
70 to 75.	Total.....	454	20	22	35	33	36	30	31	49	45	50	45	55	3
	Males.....	273	12	12	28	19	24	16	17	26	24	33	30	31	2
	Females.....	181	8	10	7	14	12	14	14	24	21	17	15	24	1
75 to 80.	Total.....	427	30	35	28	38	35	31	22	31	50	37	55	35	....
	Males.....	227	15	20	11	22	25	19	13	15	23	14	30	20	....
	Females.....	200	15	15	17	16	10	12	9	16	27	23	25	15	....
80 to 85.	Total.....	264	17	14	10	24	26	20	17	31	31	25	19	30	....
	Males.....	146	7	5	5	16	16	11	9	19	15	15	14	14	....
	Females.....	118	10	9	5	8	10	9	8	12	16	10	5	16	....
85 to 90.	Total.....	156	9	7	11	4	17	17	6	16	14	12	16	27	....
	Males.....	72	6	4	4	2	6	7	3	7	8	4	7	14	....
	Females.....	84	3	3	7	2	11	10	3	9	6	8	9	13	....
90 to 95.	Total.....	48	4	4	1	4	3	3	5	8	5	4	3	4	....
	Males.....	23	2	1	1	3	1	1	3	3	3	1	2	2	....
	Females.....	25	2	3	....	1	2	2	2	5	2	3	1	2	....
95 to 100.	Total.....	16	1	1	....	2	2	1	....	....	....	2	1	6	....
	Males.....	5	....	....	....	....	....	....	....	....	....	1	....	4	....
	Females.....	11	1	1	....	2	2	1	....	....	....	1	1	2	....
100 and over.	Total.....	8	....	....	....	1	2	....	....	1	2	....	1	1	....
	Males.....	4	....	....	....	....	2	....	....	....	1	....	....	1	....
	Females.....	4	....	....	....	1	....	....	....	1	1	....	1	....	....
Unknown.	Total.....	201	10	16	16	19	13	20	10	18	16	12	19	22	10
	Males.....	114	5	11	6	9	8	11	6	11	7	7	11	16	6
	Females.....	84	5	5	10	9	5	9	4	6	8	5	8	6	4
	Total.....	3	....	....	....	1	....	....	....	1	1	....	....	....	....



TABLE VI.—*Exhibiting, by Sex and by Months, the Number Returned as having Died in Michigan during the Year 1878 at each and every Age, the Age stated in Twelfths of a Year for those under One, and in Years for those over One Year of Age.*

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
Under 1-12.	Total.....	1,663	108	111	130	157	129	116	133	159	150	141	126	202	1
	Males.....	946	67	56	60	90	69	64	84	93	89	82	79	113	....
	Females..	669	36	52	67	60	58	50	48	64	56	53	45	79	....
	Unknown	48	5	3	3	7	2	2	1	2	5	6	2	10	....
1-12.....	Total.....	238	9	11	23	7	16	13	15	43	21	25	19	36	....
	Males.....	125	8	6	12	2	5	9	8	25	10	14	9	16	....
	Females..	113	1	5	11	5	11	4	7	17	11	11	10	20	....
2-12.....	Total.....	211	8	8	11	11	13	17	25	41	27	21	12	17	....
	Males.....	98	3	2	6	3	7	7	8	22	14	8	6	12	....
	Females..	113	5	6	5	8	6	10	17	19	13	13	6	5	....
3-12.....	Total.....	193	6	9	16	11	5	14	21	33	24	16	21	17	....
	Males.....	114	4	6	8	10	3	8	13	18	16	8	8	12	....
	Females..	79	2	3	8	1	2	6	8	15	8	8	13	5	....
4-12.....	Total.....	160	5	12	7	10	4	14	19	24	22	15	12	16	....
	Males.....	83	5	7	3	4	1	7	12	9	12	9	5	9	....
	Females..	77	....	5	4	6	3	7	7	15	10	6	7	7	....
5-12.....	Total.....	117	5	6	6	6	8	11	14	23	15	7	10	6	....
	Males.....	60	2	2	2	3	3	2	6	14	10	7	6	3	....
	Females..	57	3	4	4	3	5	9	8	9	5	....	4	3	....
6-12.....	Total.....	127	6	9	7	10	6	7	17	22	16	11	7	9	....
	Males.....	68	3	6	2	4	3	4	9	16	9	6	2	4	....
	Females..	59	3	3	5	6	3	3	8	6	7	5	5	5	....
7-12.....	Total.....	105	3	4	9	8	6	8	12	19	12	11	5	8	....
	Males.....	55	2	1	8	5	5	4	6	9	4	4	2	5	....
	Females..	50	1	3	1	3	1	4	6	10	8	7	3	3	....
8-12.....	Total.....	113	7	2	8	12	5	5	14	20	11	7	12	10	....
	Males.....	57	4	....	5	5	4	3	8	8	5	4	3	8	....
	Females..	56	3	2	3	7	1	2	6	12	6	3	9	2	....
9-12.....	Total.....	102	5	4	5	7	8	5	7	20	12	12	9	8	....
	Males.....	54	2	3	3	2	3	2	4	12	8	7	4	4	....
	Females..	48	3	1	2	5	5	3	3	8	4	5	5	4	....
10-12.....	Total.....	92	4	2	11	9	6	7	5	14	17	7	4	6	....
	Males.....	56	2	1	9	6	5	3	2	7	11	2	4	4	....
	Females..	36	2	1	2	3	1	4	3	7	6	5	....	2	....

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
2	Total.....	98	7	6	2	4	7	6	7	19	15	5	11	9	....
	Males.....	50	3	2	1	3	4	2	4	10	8	1	8	4	....
	Females.....	48	4	4	1	1	3	4	3	9	7	4	3	5	....
	Total.....	739	33	41	54	54	50	35	65	126	86	79	50	64	2
	Males.....	395	19	25	29	36	27	15	26	58	49	43	28	39	1
	Females.....	343	14	16	25	18	23	20	39	68	36	36	22	25	1
	Unknown.....	1									1				
	Total.....	470	41	24	32	30	29	22	33	46	58	44	53	58	....
	Males.....	244	20	13	15	18	17	15	12	24	26	31	25	28	....
	Females.....	226	21	11	17	12	12	7	21	22	32	13	28	30	....
	Total.....	339	22	25	16	20	26	21	22	31	30	34	49	43	....
	Males.....	160	10	12	8	14	12	8	9	16	19	17	18	17	....
	Females.....	179	12	13	8	6	14	13	13	15	11	17	31	26	....
	Total.....	240	21	16	18	21	11	18	10	14	25	21	32	33	....
	Males.....	133	11	9	7	9	4	12	6	7	15	6	20	27	....
	Females.....	107	10	7	11	12	7	6	4	7	10	15	12	6	....
	Total.....	220	6	16	14	10	12	10	14	18	27	18	37	38	....
	Males.....	108		6	5	6	5	7	6	10	12	15	16	20	....
	Females.....	112	6	10	9	4	7	3	8	8	15	3	21	18	....
	Total.....	167	12	12	12	15	9	10	6	8	20	23	17	22	1
	Males.....	69	3	5	4	5	3	6	3	2	12	8	8	10	....
	Females.....	98	9	7	8	10	6	4	3	6	8	15	9	12	1
	Total.....	150	5	14	9	16	12	8	3	14	22	12	16	19	....
	Males.....	72	2	5	2	10	5	3	2	10	12	4	7	10	....
	Females.....	78	3	9	7	6	7	5	1	4	10	8	9	9	....
	Total.....	143	11	10	15	11	9	5	11	15	17	15	15	9	....
	Males.....	70	5	6	7	9	5	3	4	8	9	5	6	3	....
	Females.....	73	6	4	8	2	4	2	7	7	8	10	9	6	....
	Total.....	111	4	7	6	6	6	7	8	7	13	17	13	17	....
	Males.....	66	2	3	4	3	5	4	5	5	6	9	11	9	....
	Females.....	45	2	4	2	3	1	3	3	2	7	8	2	8	....
	Total.....	82	5	4	5	6	7	3	11	7	9	6	7	12	....
	Males.....	39	3	2	2	2	3	1	9	4	2	3	4	4	....
	Females.....	43	2	2	3	4	4	2	2	3	7	3	3	8	....
	Total.....	103	3	9	10	8	8	2	8	9	9	12	8	17	....
	Males.....	51	2	7	3	6	4	1	4	5	6	3	4	6	....
	Females.....	52	1	2	7	2	4	1	4	4	3	9	4	11	....



TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
12.....	Total.....	91	5	5	5	7	4	4	9	13	4	11	13	11	.....
	Males.....	45	2	3	2	4	3	.....	6	5	3	7	8	2	.....
	Females..	46	3	2	3	3	1	4	3	8	1	4	5	9	.....
13.....	Total.....	72	3	1	3	8	6	5	5	6	10	9	5	11	.....
	Males.....	31	1	1	2	4	2	2	4	2	1	5	2	5	.....
	Females..	41	2	.....	1	4	4	3	1	4	9	4	3	6	.....
14.....	Total.....	70	6	2	3	7	4	6	10	6	4	6	7	9	.....
	Males.....	32	3	2	.....	1	1	5	5	3	2	.....	5	5	.....
	Females..	38	3	.....	3	6	3	1	5	3	2	6	2	4	.....
15.....	Total.....	84	5	5	3	6	6	8	8	11	11	6	8	7	.....
	Males.....	38	2	2	1	2	3	4	4	3	4	4	4	5	.....
	Females..	46	3	3	2	4	3	4	4	8	7	2	4	2	.....
16.....	Total.....	80	5	8	5	3	7	3	7	9	9	11	6	7	.....
	Males.....	38	2	3	3	1	3	2	3	6	3	5	1	6	.....
	Females..	42	3	5	2	2	4	1	4	3	6	6	5	1	.....
17.....	Total.....	99	5	8	9	9	1	5	13	13	11	7	7	11	.....
	Males.....	43	.....	4	4	3	.....	1	4	4	6	1	3	3	.....
	Females..	56	5	4	5	6	1	4	9	9	5	6	4	8	.....
18.....	Total.....	120	7	13	4	7	7	11	9	16	12	13	11	10	.....
	Males.....	57	1	7	2	4	3	8	5	7	6	5	5	4	.....
	Females..	63	6	6	2	3	4	3	4	9	6	8	6	6	.....
19.....	Total.....	107	8	4	6	11	9	11	8	6	9	14	10	11	.....
	Males.....	38	1	2	2	4	1	3	5	3	5	3	6	3	.....
	Females..	69	7	2	4	7	8	8	3	3	4	11	4	8	.....
20.....	Total.....	116	8	6	5	10	12	6	9	11	17	7	15	10	.....
	Males.....	55	7	2	3	2	8	1	3	7	5	3	8	6	.....
	Females..	61	1	4	2	8	4	5	6	4	12	4	7	4	.....
21.....	Total.....	92	6	2	6	6	7	5	9	12	6	7	11	14	.....
	Males.....	42	3	1	2	2	4	3	4	6	2	4	6	5	.....
	Females..	50	3	1	4	4	3	2	5	6	4	3	5	9	.....
22.....	Total.....	125	11	4	15	10	14	12	11	9	8	12	10	9	.....
	Males.....	56	5	2	4	7	5	7	5	3	2	6	6	4	.....
	Females..	69	6	2	11	3	9	5	6	6	6	6	4	5	.....
23.....	Total.....	122	4	4	12	13	9	8	12	13	14	11	8	13	.....
	Males.....	56	3	2	8	5	6	5	6	5	6	3	2	4	.....
	Females..	66	1	2	4	8	3	3	6	8	8	8	6	9	.....

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
24	Total	109	3	4	8	12	12	7	11	10	9	13	10	10	---
	Males	44	2	2	3	5	7	1	5	4	3	4	4	4	---
	Females	65	1	2	5	7	5	6	6	6	6	9	6	6	---
25	Total	106	10	7	10	7	11	8	9	11	11	5	8	9	---
	Males	48	3	3	4	2	8	2	5	7	5	3	4	2	---
	Females	58	7	4	6	5	3	6	4	4	6	2	4	7	---
26	Total	118	3	12	9	8	7	10	10	8	11	12	14	14	---
	Males	46	2	6	2	4	3	5	---	4	6	5	5	4	---
	Females	72	1	6	7	4	4	5	10	4	5	7	9	10	---
27	Total	89	8	6	6	13	3	7	3	6	14	12	1	8	---
	Males	41	3	2	4	6	---	1	4	3	7	6	---	5	---
	Females	48	5	4	2	7	3	6	1	3	7	6	1	3	---
28	Total	133	8	9	13	6	9	11	8	14	12	12	17	14	---
	Males	63	5	4	8	3	5	3	5	5	3	5	9	8	---
	Females	70	3	5	5	3	4	8	3	9	9	7	8	6	---
29	Total	66	5	5	4	6	6	4	2	4	8	4	6	12	---
	Males	26	2	1	---	2	2	3	2	2	2	3	4	3	---
	Females	40	3	4	4	4	4	1	---	2	6	1	2	9	---
30	Total	100	5	6	7	8	7	10	8	9	14	5	14	7	---
	Males	39	2	3	2	4	1	4	2	4	5	2	6	4	---
	Females	61	3	3	5	4	6	6	6	5	9	3	8	3	---
31	Total	73	2	7	13	4	1	3	6	9	7	8	6	6	1
	Males	38	---	3	6	2	---	2	2	7	2	3	6	4	1
	Females	35	2	4	7	2	1	1	4	2	5	5	---	2	---
32	Total	80	5	7	4	6	12	7	4	8	7	7	7	5	1
	Males	34	1	2	2	3	3	6	3	3	3	2	5	1	---
	Females	46	4	5	2	3	9	1	1	5	4	5	2	4	1
33	Total	99	3	11	6	7	7	5	9	5	14	10	15	7	---
	Males	41	---	6	3	4	1	3	1	3	5	4	8	3	---
	Females	58	3	5	3	3	6	2	8	2	9	6	7	4	---
34	Total	86	4	4	7	8	7	2	10	11	7	10	7	9	---
	Males	38	3	4	4	3	1	1	5	5	4	2	2	4	---
	Females	48	1	---	3	5	6	1	5	6	3	8	5	5	---
35	Total	116	9	9	11	11	7	4	9	13	11	13	9	10	---
	Males	54	2	4	4	6	4	2	4	5	3	10	4	6	---
	Females	62	7	5	7	5	3	2	5	8	8	3	5	4	---
36	Total	83	6	6	7	9	7	8	4	10	4	4	10	7	1
	Males	34	2	3	4	4	4	5	1	4	---	1	5	1	---
	Females	49	4	3	3	5	3	3	3	6	4	3	5	6	1



TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
37.....	Total.....	61	7	3	6	4	4	6	12	2	2	5	9	1	
	Males.....	27	5	1	2	3	2	1	4	1	1	3	3	1	
	Females.....	34	2	2	4	1	2	5	8	1	1	2	6		
38.....	Total.....	80	5	2	11	8	4	2	4	4	13	11	5	11	
	Males.....	33	2	1	7	5	1	1	2	3	5	1	2	3	
	Females.....	47	3	1	4	3	3	1	2	1	8	10	3	8	
39.....	Total.....	76	3	3	10	10	6	4	6	3	6	10	7	8	
	Males.....	43	2	3	5	4	3	2	4	3	5	4	3	5	
	Females.....	33	1		5	6	3	2	2		1	6	4	3	
40.....	Total.....	95	4	5	9	7	3	8	9	16	7	12	6	9	
	Males.....	48	1	1	7	5	2	2	4	7	6	8	3	2	
	Females.....	47	3	4	2	2	1	6	5	9	1	4	3	7	
41.....	Total.....	58	3	4	4	3	3	4	8	5	8	4	6	6	
	Males.....	28	2	1	2	1		1	4	3	6	2	1	5	
	Females.....	30	1	3	2	2	3	3	4	2	2	2	5	1	
42.....	Total.....	93	7	7	9	6	9	8	10	8	8	6	8	7	
	Males.....	36	1	2	4	3	1	6	4	3	3	2	4	3	
	Females.....	57	6	5	5	3	8	2	6	5	5	4	4	4	
43.....	Total.....	75	4	6	1	6	10	2	12	10	6	7	6	5	
	Males.....	33	1	4	1	3	4	1	3	4	3	2	4	3	
	Females.....	42	3	2		3	6	1	9	6	3	5	2	2	
44.....	Total.....	70	2	2	6	3	10	6	8	3	8	7	6	9	
	Males.....	40	1		3	1	5	5	6	2	5	4	2	6	
	Females.....	30	1	2	3	2	5	1	2	1	3	3	4	3	
45.....	Total.....	91	4	2	11	7	5	12	7	7	9	8	11	8	
	Males.....	45	3	1	4	3	2	3	5	6	3	4	7	4	
	Females.....	46	1	1	7	4	3	9	2	1	6	4	4	4	
46.....	Total.....	74	10	7	5	5	4	7	3	7	5	12	5	4	
	Males.....	38	5	4	3	4	3	3	3	3	1	6	2	1	
	Females.....	36	5	3	2	1	1	4		4	4	6	3	3	
47.....	Total.....	75	3	5	5	4	8	4	8	7	10	8	4	9	
	Males.....	37	1	3	3	2	5	2	2	3	7	5	1	3	
	Females.....	38	2	2	2	2	3	2	6	4	3	3	3	6	
48.....	Total.....	91	7	4	3	6	9	9	12	8	6	10	3	14	
	Males.....	57	5	2	2	5	6	6	8	3	3	5	2	10	
	Females.....	34	2	2	1	1	3	3	4	5	3	5	1	4	
49.....	Total.....	60	5	5	5	4	2	3	11	1	7	5	9	3	
	Males.....	32	3	3	3	3	1	3	6		4	2	3	1	
	Females.....	28	2	2	2	1	1		5	1	3	3	6	2	

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
50	Total.....	96	2	7	5	6	4	9	13	8	13	9	7	13	---
	Males.....	55	1	5	4	2	4	4	9	6	10	4	3	3	---
	Females..	41	1	2	1	4	---	5	4	2	3	5	4	10	---
51	Total.....	51	6	1	2	8	4	5	3	2	3	6	4	7	---
	Males.....	28	3	1	---	5	2	3	2	2	2	6	2	---	---
	Females..	23	3	---	2	3	2	2	1	---	1	---	2	7	---
52	Total.....	95	7	5	7	10	7	4	8	11	10	7	9	10	---
	Males.....	57	3	4	6	6	2	3	5	8	5	4	4	7	---
	Females..	38	4	1	1	4	5	1	3	3	5	3	5	3	---
53	Total.....	68	4	6	1	7	3	6	5	7	10	4	7	8	---
	Males.....	34	2	4	1	5	1	1	2	3	3	3	4	5	---
	Females..	34	2	2	---	2	2	5	3	4	7	1	3	3	---
54	Total.....	73	5	8	4	5	4	5	7	8	13	5	2	6	---
	Males.....	40	3	2	3	3	4	3	3	4	8	1	2	4	---
	Females..	33	2	6	1	2	---	2	4	4	5	4	1	2	---
55	Total.....	96	4	3	6	7	8	11	11	13	10	6	7	10	---
	Males.....	57	1	3	3	5	5	7	8	9	5	3	3	5	---
	Females..	39	3	---	3	2	3	4	3	4	5	3	4	5	---
56	Total.....	98	9	5	9	5	2	13	6	11	8	7	11	12	---
	Males.....	50	2	2	4	2	1	5	3	7	4	5	7	8	---
	Females..	48	7	3	5	3	1	8	3	4	4	2	4	4	---
57	Total.....	83	3	6	13	6	7	3	3	9	8	8	9	8	---
	Males.....	49	1	2	9	4	6	1	2	6	3	4	6	5	---
	Females..	34	2	4	4	2	1	2	1	3	5	4	3	3	---
58	Total.....	93	2	6	5	9	7	11	7	7	9	12	8	10	---
	Males.....	49	1	4	3	4	5	6	3	5	5	6	4	3	---
	Females..	44	1	2	2	5	2	5	4	2	4	6	4	7	---
59	Total.....	74	1	5	10	9	5	5	6	6	6	9	5	7	---
	Males.....	48	1	4	5	5	4	2	4	2	5	7	4	5	---
	Females..	26	---	1	5	4	1	3	2	4	1	2	1	2	---
60	Total.....	89	3	4	6	10	9	8	4	11	6	13	9	6	---
	Males.....	54	---	4	4	6	4	4	3	6	3	10	6	4	---
	Females..	35	3	---	2	4	5	4	1	5	3	3	3	2	---
61	Total.....	63	3	3	1	11	6	6	4	5	7	7	8	2	---
	Males.....	35	1	2	---	8	3	4	4	1	3	3	4	2	---
	Females..	28	2	1	1	3	3	2	---	4	4	4	4	---	---
62	Total.....	87	3	11	7	10	8	9	8	8	5	5	6	7	---
	Males.....	49	2	6	3	9	5	7	4	2	2	2	3	4	---
	Females..	38	1	5	4	1	3	2	4	6	3	3	3	3	---



TABLE VI.—CONTINUED.—Deaths by Ages, by Sex, by Months.

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
63.	Total.....	102	5	8	9	10	12	9	2	11	11	5	6	13	1
	Males.....	67	4	5	4	6	9	5	1	10	9	3	5	6	---
	Females..	35	1	3	5	4	3	4	1	1	2	2	1	7	1
64.	Total.....	98	5	6	11	11	10	4	8	9	10	9	7	8	---
	Males.....	59	3	3	6	5	8	2	5	7	4	4	5	7	---
	Females..	39	2	3	5	6	2	2	3	2	6	5	2	1	---
65.	Total.....	108	11	9	12	7	5	4	11	11	9	8	11	10	---
	Males.....	69	10	3	6	4	3	3	6	8	8	6	3	9	---
	Females..	39	1	6	6	3	2	1	5	3	1	2	8	1	---
66.	Total.....	97	9	5	6	14	6	3	8	8	9	6	13	10	---
	Males.....	53	5	3	2	7	4	---	5	6	3	3	6	9	---
	Females..	44	4	2	4	7	2	3	3	2	6	3	7	1	---
67.	Total.....	101	5	11	6	11	7	4	6	5	16	9	9	12	---
	Males.....	60	3	5	4	6	3	1	4	2	9	7	6	10	---
	Females..	41	2	6	2	5	4	3	2	3	7	2	3	2	---
68.	Total.....	110	4	3	13	13	12	7	8	5	14	13	7	11	---
	Males.....	69	3	3	8	9	7	5	6	4	8	6	3	7	---
	Females..	41	1	---	5	4	5	2	2	1	6	7	4	4	---
69.	Total.....	92	4	6	4	11	12	13	3	6	6	7	11	8	1
	Males.....	49	2	4	1	6	7	5	---	4	2	5	5	7	1
	Females..	43	2	2	3	5	5	8	3	2	4	2	6	1	---
70.	Total.....	107	3	4	8	5	6	7	8	12	14	10	16	12	2
	Males.....	62	3	2	7	3	5	4	3	8	5	6	8	7	1
	Females..	45	---	2	1	2	1	3	5	4	9	4	8	5	1
71.	Total.....	74	6	3	6	3	12	5	4	9	5	7	4	10	---
	Males.....	46	3	1	4	1	9	3	3	5	2	5	3	7	---
	Females..	28	3	2	2	2	3	2	1	4	3	2	1	3	---
72.	Total.....	106	5	4	8	8	10	9	7	9	9	11	14	12	---
	Males.....	63	4	1	6	5	5	---	4	4	5	7	11	6	---
	Females..	43	1	3	2	3	5	4	3	5	4	4	3	6	---
73.	Total.....	81	3	1	4	6	4	5	8	9	12	13	6	10	---
	Males.....	45	1	1	3	3	2	2	4	2	8	9	5	5	---
	Females..	36	2	---	1	3	2	3	4	7	4	4	1	5	---
74.	Total.....	86	3	10	9	11	4	4	4	10	5	9	5	11	1
	Males.....	57	1	7	8	7	3	2	3	6	4	6	3	6	1
	Females..	29	2	3	1	4	1	2	1	4	1	3	2	5	---
75.	Total.....	104	9	10	8	5	6	10	2	9	10	12	17	6	---
	Males.....	52	2	6	4	3	3	5	2	4	6	3	11	3	---
	Females..	52	7	4	4	2	3	5	---	5	4	9	6	3	---

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
76.....	Total.....	82	3	6	3	5	11	4	9	3	13	9	10	6	---
	Males.....	48	1	3	2	2	9	4	5	2	5	6	5	4	---
	Females..	34	2	3	1	3	2	---	4	1	8	3	5	2	---
77.....	Total.....	65	5	6	4	12	5	3	3	5	3	5	7	7	---
	Males.....	33	2	3	1	6	5	3	1	2	3	2	3	2	---
	Females..	32	3	3	3	6	---	---	2	3	---	3	4	5	---
78.....	Total.....	104	11	9	8	11	10	8	3	7	13	6	10	8	---
	Males.....	55	9	5	---	7	7	3	2	2	6	2	6	6	---
	Females..	49	2	4	8	4	3	5	1	5	7	4	4	2	---
79.....	Total.....	72	2	4	5	5	3	6	5	7	11	5	11	8	---
	Males.....	39	1	3	4	4	1	4	3	5	3	1	5	5	---
	Females..	33	1	1	1	1	2	2	2	2	8	4	6	3	---
80.....	Total.....	67	4	6	3	7	8	5	4	7	4	7	4	8	---
	Males.....	39	2	3	2	5	6	4	1	3	2	4	3	4	---
	Females..	28	2	3	1	2	2	1	3	4	2	3	1	4	---
81.....	Total.....	47	3	1	1	4	5	6	2	9	7	1	4	4	---
	Males.....	24	1	---	---	2	3	3	1	7	2	---	2	3	---
	Females..	23	2	1	1	2	2	3	1	2	5	1	2	1	---
82.....	Total.....	58	6	2	4	7	4	3	5	8	7	5	4	3	---
	Males.....	28	2	---	2	5	2	1	3	5	3	1	2	2	---
	Females..	30	4	2	2	2	2	2	2	3	4	4	2	1	---
83.....	Total.....	34	2	1	2	2	3	2	3	1	4	5	4	5	---
	Males.....	20	1	---	1	---	1	1	3	1	3	4	4	1	---
	Females..	14	1	1	1	2	2	1	---	---	1	1	---	4	---
84.....	Total.....	58	2	4	---	4	6	4	3	6	9	7	3	10	---
	Males.....	35	1	2	---	4	4	2	1	3	5	6	3	4	---
	Females..	23	1	2	---	---	2	2	2	3	4	1	---	6	---
85.....	Total.....	33	1	1	3	1	3	5	1	4	2	---	4	8	---
	Males.....	16	1	1	---	1	1	4	1	1	2	---	2	2	---
	Females..	17	---	---	3	---	2	1	---	3	---	---	2	6	---
86.....	Total.....	36	1	1	3	---	5	3	---	2	5	3	8	5	---
	Males.....	16	1	1	1	---	2	1	---	1	1	2	3	3	---
	Females..	20	---	---	2	---	3	2	---	1	4	1	5	2	---
87.....	Total.....	33	1	1	1	1	6	4	3	5	1	3	1	6	---
	Males.....	18	1	---	1	1	3	1	2	3	1	1	1	3	---
	Females..	15	---	1	---	---	3	3	1	2	---	2	---	3	---





TABLE VI.—CONTINUED.—*Deaths by Age, by Sex, by Months.*

AGES IN YEARS,	SEX.	YEAR, 1878.	MONTHS, 1878.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
103.....	Females..	1	---	---	---	---	---	---	---	1	---	---	---	---	---
104.....	Males.....	1	---	---	---	---	---	---	---	---	---	---	---	1	---
107.....	Females..	1	---	---	---	1	---	---	---	---	---	---	---	---	---
116.....	Males.....	1	---	---	---	---	1	---	---	---	---	---	---	---	---
Unknown	Total.....	201	10	16	16	19	13	20	10	18	16	12	19	22	10
	Males.....	114	5	11	6	9	8	11	6	11	7	7	11	16	6
	Females..	84	5	5	10	9	5	9	4	6	8	5	8	6	4
	Unknown	3	---	---	---	1	---	---	---	1	1	---	---	---	---

## INFANT MORTALITY.

This subject may be studied in Exhibits F and G, and Tables IV., V., and VI., on preceding pages, also in Exhibits 2, 3, 4, and 5, and Table VIII., following.

More still-births were returned for the year 1878 than for any previous year. Of all the deaths returned for the year 1878, 6.21 per cent. were still-births, and 2.26 per cent. of all the children born were still-born.

EXHIBIT 2.—*The Relation of Still-births to All Persons Returned as having Died in Michigan during the several Years 1873 to 1878, inclusive, according to the Returns of Deaths for the Year 1873, and as per Returns of Deaths corrected by Returns of Births for the Years 1874 to 1878, inclusive.*

	TOTAL DEATHS AND STILL-BIRTHS.					
	1873.	1874.	1875.	1876.	1877.	1878.
Total Number of Deaths.....	14,258	12,500	11,990	12,576	12,919	12,765
Number of Still-births.....	* 274	464	629	646	720	793
Per Cent. of Still-births to Total Deaths.....	1.92	3.71	5.25	5.14	5.57	6.21

\* As per returns of deaths.

17—1878.



TABLE VIII.—Exhibiting, by Sex, the Number of Children under One Year of Age Returned as having Died in Michigan during the Year 1878; distinguishing the Months in which they Died, their Age in Months at Death, the Months in which they were Born, and whether Born in the Year of Death or in the Previous Year.\*

Months in which Births and Deaths Occurred.	NUMBER BORN IN EACH MONTH OF YEAR OF DEATH.			NUMBER OF CHILDREN WHO DIED AT EACH AGE IN MONTHS.													Number Born in each Month of Year Previ-ous to Year of Death.			DEATHS BY MONTHS.					
	Total.	Sex.	No. of each Sex.	-1.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	No. of each Sex.	Total.	Year.	Total.	Sex.	Total.	Sex.	Total.	Sex.	Total.
				Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females										
January.....	223	Males..... Females....	130 93	67 26	8 1	3 5	4 2	5 ..	2 3	3 3	2 1	4 3	2 3	2 2	3 4	..	..	1877.	67	103	38	65	105	168	63
February.....	231	Males..... Females....	119 112	56 52	6 5	2 6	3 3	7 5	2 4	3 3	1 1	..	3 2	1 1	2 4	..	..	1878.	62	119	30	62	92	181	59
March.....	230	Males..... Females....	123 127	60 67	12 11	6 5	8 8	3 4	2 4	2 5	8 1	5 5	3 2	2 2	1 6	..	..	1877.	78	161	41	71	119	232	113
April.....	260	Males..... Females....	150 119	90 69	2 5	3 8	10 1	4 6	3 3	4 6	5 3	5 7	2 5	6 3	3 1	..	..	1878.	105	179	32	66	137	245	108
May.....	242	Males..... Females....	130 112	69 58	5 11	7 6	3 2	3 3	1 5	3 3	5 1	4 1	3 5	1 1	3 7	..	..	1877.	85	165	27	46	113	211	99
June.....	228	Males..... Females....	129 99	64 50	9 4	7 10	8 6	7 7	2 9	4 3	4 4	3 2	3 3	4 4	2 4	..	..	1878.	97	183	18	38	115	221	106
July.....	236	Males..... Females....	140 96	84 48	8 7	13 17	12 8	7 8	6 8	9 6	6 6	8 4	4 3	2 3	3 3	..	..	1877.	140	243	24	45	164	268	124
August.....	236	Males..... Females....	125 108	63 64	26 17	18 19	18 15	9 15	14 9	16 6	9 10	8 12	7 8	10 9	31 26	..	..	1878.	207	362	37	73	244	435	191
September...	190	Males..... Females....	121 78	89 56	10 11	14 13	16 8	13 10	10 5	9 7	4 8	5 6	8 4	11 6	8 7	..	..	1877.	169	293	27	44	196	337	111
October.....	171	Males..... Females....	103 68	82 53	14 11	8 13	8 8	9 6	7 ..	6 5	4 7	4 3	4 5	1 4	4 4	..	..	1878.	149	260	8	12	162	272	120
November...	160	Males..... Females....	85 65	79 45	9 10	6 6	8 13	5 7	6 4	2 5	3 3	3 9	4 5	4 5	8 3	..	..	1877.	138	235	8	11	136	246	110
December...	192	Males..... Females....	113 79	113 79	16 20	12 5	9 5	9 7	3 3	4 5	5 3	8 2	4 4	4 2	4 5	..	..	1878.	104	334	..	..	194	334	140

[illegible]

\* Excluding 1 female, month of death unknown; and 48 deaths of persons of unknown sex, —49 in all.

Exhibit 3 shows, by sex, the number of children who were born in each month of the year 1877 and died during each month of 1877, the number born in each month of 1877 who died in the months of 1878 under one year of age, the total number born in each month of 1877 who died aged under one year, and, by months, the per cent. of deaths of children aged under one year who were born in 1877 to all children born in 1877. Of the children born in 1877 who died aged under one year 83.47 per cent. died during the year 1877—the year of birth—and 16.53 per cent. lived into the succeeding year. An examination of the exhibit shows that the per cent. of deaths of children aged under one year to the children born is greatest for February and least for September. Of the children born in 1877 who died aged under one year, the per cent. is greater among males than among females.



EXHIBIT 3.—Of the Children Born in 1877, according to the Returns, the Number who Died during the Year 1877; the Number who Died during the Year 1878, under One Year of Age; The Total Number who Died under One Year of Age; and the Per Cent. of Decedents Aged under One Year to the Children Born in 1877.

MONTHS OF BIRTH AND OF DEATH.	CHILDREN BORN IN 1877.					MALES BORN IN 1877.					FEMALES BORN IN 1877.				
	Births in 1877, as Returned.	Died during the Year 1877.	Died Aged under 1 Year during the Year 1878.	Total Died Aged under 1 Year.	Per Cent. of Deaths under 1 to Births.	Births of Males in 1877, as Returned.	Died during the Year 1877.	Died Aged under 1 Year during the Year 1878.	Total Died Aged under 1 Year.	Per Cent. of Deaths under 1 to Births.	Births of Females in 1877, as Returned.	Died during the Year 1877.	Died Aged under 1 Year during the Year 1878.	Total Died Aged under 1 Year.	Per Cent. of Deaths under 1 to Births.
1.....	33,324	2,692	533	3,225	9.68	17,193	1,551	285	1,836	10.68	16,077	1,141	248	1,389	8.64
January.....	2,212	245	.....	245	11.08	1,187	139	.....	139	11.71	1,021	106	.....	106	10.38
February.....	2,246	289	7	296	13.18	1,192	164	3	167	14.01	1,053	135	4	139	12.25
March.....	2,690	290	10	300	11.15	1,372	168	4	172	12.54	1,308	122	6	128	9.79
April.....	2,635	283	9	292	9.87	1,421	157	4	161	11.33	1,229	96	5	101	8.22
May.....	2,683	245	26	271	10.10	1,314	143	19	162	12.33	1,385	102	7	109	7.99
June.....	2,637	226	26	252	9.48	1,331	132	15	147	11.04	1,323	94	11	105	7.94
July.....	2,399	227	37	264	9.11	1,514	125	18	143	9.45	1,381	102	19	121	8.76
August.....	3,227	237	57	294	9.11	1,664	134	31	165	9.92	1,560	103	26	129	8.27
September.....	3,048	174	60	234	7.68	1,530	86	32	118	7.71	1,514	88	28	116	7.66
October.....	3,015	175	81	256	8.49	1,591	114	44	158	9.93	1,423	61	37	98	6.89
November.....	2,817	154	100	254	8.92	1,446	88	54	142	9.82	1,393	66	46	112	8.04
December.....	3,145	177	120	297	9.44	1,631	101	61	162	9.93	1,507	76	59	135	8.96

\* Excluding 71 in unknown month,—34 males, 32 females, and 5 unknown sex.



# DEATHS—INFANT MORTALITY.

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MONTHS OF BIRTH, 1877.	Born in 1877 Year of Age.	MONTHS OF DEATH, 1877.												MONTHS OF DEATH, 1878.												Per Cent. Died Aged under 1 month.*	Births in 1878, as Re- turned b	Per Cent. of Children who Died Aged un- der 1 month to all Chil- dren born. c
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Born in 1877 died age under 1 Yr.	3,225	146	178	153	159	153	229	445	328	287	221	290	65	62	71	66	46	38	45	73	44	12	11	---	33,324	---		
January.....	245	93	21	16	14	9	10	9	26	13	19	11	1	---	---	---	---	---	---	---	---	---	---	---	37.96	2,212	4.20	
February.....	296	---	122	15	13	9	10	21	56	25	8	5	5	7	---	---	---	---	---	---	---	---	---	---	41.22	2,246	5.43	
March.....	300	---	---	147	15	11	5	21	36	27	15	6	7	4	6	---	---	---	---	---	---	---	---	---	49.00	2,630	5.46	
April.....	262	---	---	---	111	12	8	23	45	19	18	9	8	5	2	2	---	---	---	---	---	---	---	---	42.37	2,635	4.18	
May.....	271	---	---	---	---	---	118	12	30	39	21	12	7	6	4	11	4	---	---	---	---	---	---	---	43.54	2,683	4.40	
June.....	252	---	---	---	---	---	---	108	15	40	28	15	7	13	3	2	5	9	7	---	---	---	---	---	42.86	2,637	4.06	
July.....	264	---	---	---	---	---	---	---	120	41	40	15	2	9	6	4	8	7	6	6	---	---	---	---	43.45	2,899	4.14	
August.....	294	---	---	---	---	---	---	---	---	162	37	19	5	14	5	9	9	12	8	7	7	---	---	---	55.10	3,227	5.02	
September.....	234	---	---	---	---	---	---	---	---	---	118	19	18	19	5	6	7	8	5	5	5	19	---	---	50.43	3,048	3.87	
October.....	256	---	---	---	---	---	---	---	---	---	---	147	18	10	6	12	6	10	6	5	7	14	15	---	57.42	3,015	4.87	
November.....	254	---	---	---	---	---	---	---	---	---	---	---	133	21	8	9	7	6	6	8	14	20	17	5	---	52.36	2,847	4.67
December.....	297	---	---	---	---	---	---	---	---	---	---	---	---	177	9	8	16	10	8	7	12	20	12	7	11	60.00	3,145	5.63
Deaths at each Age. { No. of Deaths. Ages in Months }	3,225	---	---	---	---	---	---	---	---	---	---	---	---	1556	238	221	188	171	145	175	131	103	104	98	90	48.25	---	4.67
.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

\* That is, per cent. of children who died during month of birth to total born in 1877 who died aged under one year.

b Excluding 71 in unknown month—44 males, 33 females, and 5 of unknown sex.

c That is, of the children born in 1877, the per cent. who died during month of birth,—according to the returns of births and of deaths. It should be borne in mind that probably a larger proportion of the births and of the deaths are returned for the latter months of the year.

Exhibit 4 preceding page, shows the month of death of the children born in each month of 1877 who died aged under one year. Nearly half (48.25 per cent.) of all the children born in 1877 who died under one year of age died during the month of birth, as shown by the third column from the last, and 4.67 per cent. of all the children born in 1877 died during the month of birth, as shown by the last column. The average for four years, as shown in the corresponding exhibits for 1875, 1876, 1877, and 1878, shows that 43.55 per cent. of the children who die under one year of age die during the month, and 4.40 per cent. of all the children born die during the month of birth.

Exhibit 5 shows the relation of decedents aged under one month to children born in 1878, by months, by sex. The per cent. is greater for males than for females; and among the totals the per cent. is greatest in December.

EXHIBIT 5.—*The Relation, by Months, by Total, and by Sex, of the Decedents Aged under One Month to the Births in Michigan during the Year ending December 31, 1878.*

SEX, ETC., SPECIFIED.	YEAR, 1878.	MONTHS, 1878.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
{ Births.....	35,162	2,301	2,414	2,836	2,937	2,805	2,797	2,855	3,295	3,260	3,266	3,061	3,423	32
Total.....	1,663	108	111	130	157	129	116	133	159	150	141	126	203	1
{ Per Cent. of Deaths to Births...	4.73	4.91	4.60	4.58	5.35	4.60	4.15	4.69	4.83	4.60	4.32	4.12	5.90	3.13
{ Births.....	18,224	1,180	1,239	1,414	1,538	1,400	1,472	1,462	1,721	1,733	1,712	1,529	1,754	29
{ Deaths aged under one month...	946	67	56	60	90	69	64	84	93	89	82	79	113	.....
{ Per Cent. of Deaths to Births...	5.19	5.68	4.45	4.16	5.85	4.93	4.35	5.75	5.40	5.14	4.79	5.17	6.44	.....
{ Births.....	16,871	1,012	1,150	1,390	1,391	1,400	1,323	1,370	1,570	1,522	1,546	1,527	1,659	11
{ Deaths aged under one month...	669	36	52	67	60	58	50	48	64	56	53	45	79	1
{ Per Cent. of Deaths to Births...	3.97	3.56	4.52	4.82	4.31	4.14	3.78	3.60	4.08	3.68	3.43	2.95	4.76	9.09
{ Births.....	67	9	5	2	8	5	2	3	4	5	5	5	10	1
{ Deaths aged under one month...	43	5	3	3	7	2	2	1	2	5	6	2	10	.....

\* Still-births included.

# DEATHS OF CENTENARIANS.

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concerning them included in the Returns.

NAMES OF CENTENARIANS, 1878	Sex.	Color.	Married, Single, or Widowed.	Birthplace.	Age.			PLACE OF DEATH.		DATE OF DEATH, 1878		Cause of Death.
					Years.	Months.	Days.	Town.	County.	Month.	Day.	
Kewawayqua Kenabrick	Male	Indian	Married	Michigan	116			Wayland	Allegan	May	7	Old Age.
Mrs. Gray	Female	Black	Widow	Kentucky	107			Jackson	Jackson	April	20	Old Age.
Sophia Smith	Female	White	Widow	Pennsylvania	103	10		Medina	Lenawee	August	21	Old Age.
Owen McEntee	Male	White	Widower	Ireland	104			Lyndon	Washtenaw	December	30	Old Age.
Margauretta Tinnan	Female	White	Married	Ireland	102			Detroit	Wayne	November	7	Old Age.
Mary Stanton	Female	White	Widow	Ireland	100			Detroit	Wayne	September	21	Old Age.

\* Not stated.



**EXHIBIT H.**—*Counties and Townships from which no Returns of Deaths for 1878 were received by the State Department, showing Population in 1874, by Sex.*

COUNTIES.	TOWNSHIPS FROM WHICH NO RETURNS OF DEATHS FOR 1878 WERE RECEIVED.	POPULATION, 1874.		
		Total.	Males.	Females.
Total.....		15,071	8,479	6,492
Antrim.....	Central Lake.....	535	301	234
Chippewa.....	{ Detour.....	221	131	90
	{ Sugar Island.....	332	173	159
Iosco.....	Oscoda.....	1,001	629	372
Isabella.....	Rolland.....	213	153	140
Isle Royal.....	All Townships.....	4	4	
Mackinac.....	{ Hendricks..... <sup>bc</sup>			
	{ Holmes..... <sup>b</sup>	793	406	392
	{ Newton..... <sup>bc</sup>			
	{ St. Ignace..... <sup>b</sup>	326	166	160
Menominee.....	{ Cedarville.....	242	159	83
	{ Ingallston.....	272	203	69
	{ Menominee.....	2,976	1,831	1,125
	{ Spaulding..... <sup>c</sup>			
Muskegon.....	Montague..... <sup>b</sup>	1,360	746	614
Schoolcraft.....	{ Munising..... <sup>b</sup>	472	320	152
	{ Onota..... <sup>b</sup>	517	309	208
Shiawassee.....	Burns..... <sup>b</sup>	1,493	778	720
St. Clair.....	St. Clair.....	2,031	1,100	931
Wayne.....	Grosse Point.....	2,193	1,150	1,043

<sup>a</sup> Returns received too late for compilation.

<sup>b</sup> No returns from supervisor.

<sup>c</sup> Organized since Census was taken.







## DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.

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Branch.....	Total.....	204	10	12	13	15	19	20	11	12	25	26	18	14	22	47	17	12	8	4	5	7	6	9	8	15	7	14	10	14	9	6	
	Males.....	109	5	8	6	14	16	8	7	12	15	9	7	8	25	10	7	1	2	4	4	3	4	7	4	9	4	7	7	8	1	2	
	Females..	94	5	4	9	4	10	3	5	13	11	9	7	14	21	7	5	7	2	1	3	3	5	1	4	6	3	7	3	6	8	2	
	Unknown	1	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Calhoun.....	Total.....	270	12	20	16	21	24	18	20	35	24	19	30	19	1	59	8	7	15	13	14	8	11	10	13	11	18	8	17	17	14	17	
	Males.....	136	7	9	9	9	16	10	11	19	10	7	9	9	1	30	6	5	3	5	2	4	3	3	7	7	9	6	11	9	8	8	
	Females..	131	5	11	7	11	8	8	9	16	14	11	21	10	....	26	2	2	12	8	12	4	8	7	6	4	9	2	6	6	9	9	
	Unknown	3	....	....	....	....	1	....	....	....	....	....	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Cass.....	Total.....	223	11	12	11	20	15	10	18	22	35	25	15	28	....	83	18	13	11	8	5	7	7	5	3	3	4	9	11	8	13	7	
	Males.....	116	6	8	4	11	7	5	9	14	11	12	9	20	....	45	8	7	4	4	1	3	2	1	2	2	3	5	8	4	5	7	5
	Females..	107	5	4	7	9	8	5	9	8	24	14	6	8	....	38	10	6	7	4	4	4	5	4	1	1	1	4	3	4	3	6	2
	Charlevoix..	Total.....	32	1	2	1	4	2	2	4	5	6	3	1	1	....	14	2	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....
Charlevoix..	Males.....	18	....	1	....	2	1	2	2	4	2	3	1	....	....	8	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
	Females..	14	1	1	1	2	1	....	....	1	4	....	....	....	....	6	....	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	
	Cheboygan..	Total.....	71	5	11	4	10	2	5	5	7	5	3	4	8	2	34	9	9	2	2	1	1	....	....	....	....	....	....	....	....	....	....
		Males.....	32	2	4	1	5	....	3	3	6	3	1	1	2	1	18	2	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Females..		38	3	7	3	5	2	2	2	1	2	1	3	6	1	15	7	5	2	1	1	....	....	....	....	....	....	....	....	....	....	....	
Unknown		1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Chippewa...	Total.....	41	....	2	1	....	....	....	3	1	9	5	5	13	2	....	20	1	3	1	2	3	....	....	....	....	....	....	....	....	....	....	
	Males.....	25	....	2	1	....	....	....	2	....	4	2	5	8	1	....	12	....	3	1	2	....	....	....	....	....	....	....	....	....	....	....	
	Females..	16	....	....	....	....	....	....	1	1	5	3	....	5	1	....	8	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
	Clare.....	Total.....	20	3	....	1	1	4	....	2	....	....	....	3	2	2	....	13	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Males.....		10	1	....	....	....	2	....	....	1	....	....	2	2	1	....	4	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Females..		9	2	....	....	....	1	2	....	....	....	....	1	....	1	....	8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Unknown		1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	





## DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.

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	Total.....	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																										
Win.	Males.....	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																												
Females..	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																
Gr.Traverse	Males.....	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Females..	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86</																																			





## DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.

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Kalkaska.....	Males.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Females.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Kent.....	Total.....	560	29	25	49	40	41	45	51	63	58	39	62	56	9	217	42	20	26	27	23	19	18	25	11	16	22	11	19	24	15	18	8	
	Males.....	255	11	14	23	20	19	20	24	28	31	20	28	27	1	106	19	12	4	10	12	7	6	11	7	8	11	7	10	16	10	7	3	
	Females.....	291	18	10	26	20	22	25	26	35	27	19	34	28	1	108	23	8	22	17	11	12	12	14	4	7	11	4	9	8	11	5		
	Unknown	3	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Keweenaw.....	Total.....	52	4	6	1	7	9	6	5	3	3	1	3	4	.....	36	2	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Males.....	30	3	3	1	5	5	4	2	1	1	.....	2	3	.....	20	1	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Females.....	21	1	3	.....	2	4	1	3	2	2	1	1	1	.....	15	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Unknown	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lake.....	Total.....	22	1	1	3	2	.....	.....	3	1	2	1	3	4	1	6	4	.....	1	1	1	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Males.....	8	.....	.....	.....	.....	.....	.....	1	1	1	.....	1	3	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lapeer.....	Females.....	14	1	1	3	2	.....	.....	2	.....	1	1	2	1	.....	6	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Total.....	180	6	7	21	12	19	15	12	22	13	16	18	18	1	77	9	9	7	6	7	7	4	3	5	4	8	6	10	2	7	8	1	
	Males.....	102	3	3	7	10	11	10	8	15	6	8	10	10	1	48	5	3	4	3	3	4	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Females.....	77	3	4	13	2	8	5	4	7	7	8	8	8	.....	28	4	6	3	3	4	3	1	3	3	3	4	2	4	1	2	3	.....	
Leelanaw.....	Unknown	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Total.....	49	.....	.....	4	3	5	.....	5	7	5	5	9	6	.....	15	1	4	3	2	1	3	1	3	1	1	4	1	1	3	2	3	.....	
Lenawee.....	Males.....	22	.....	.....	5	1	2	.....	1	3	2	2	5	3	.....	7	.....	1	1	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females.....	27	.....	.....	1	2	3	.....	4	4	3	3	4	3	.....	8	1	3	2	.....	1	1	1	1	1	1	2	.....	.....	.....	.....	.....	.....	
Lenawee.....	Total.....	330	20	23	36	23	39	27	10	42	32	33	22	32	.....	83	11	9	15	16	14	10	6	13	17	8	15	15	14	23	25	28	3	
	Males.....	167	12	8	17	16	12	13	6	22	20	11	13	17	.....	58	4	4	9	12	7	3	2	7	7	8	7	4	5	8	14	.....	.....	
	Females.....	162	8	15	19	7	17	14	4	20	12	22	9	15	.....	29	7	5	6	4	7	7	4	6	10	.....	8	11	9	15	17	14	3	
	Unknown	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

\* No returns from the county clerk to the State Department.



TABLE X.—CONTINUED.—Deaths by Counties, by Sex, by Months, and by Age, 1878.

COUNTIES.	SEX.	YEAR, 1878.	MONTHS, 1878.												AGES IN PERIODS OF YEARS, 1878.																			
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.	
Livingston..	Total.....	156	9	10	8	17	15	13	10	10	11	23	16	13	1	44	7	4	4	4	9	8	5	6	8	11	4	6	5	8	9	12	2	Unknown.
	Males.....	72	3	4	2	10	6	7	4	6	6	11	9	4	--	22	3	2	3	2	4	1	3	2	4	6	1	3	2	6	8	5	--	Unknown.
	Females..	84	6	6	6	7	9	6	6	4	5	12	7	9	1	22	4	2	1	2	5	7	2	4	4	5	3	3	3	2	6	7	2	Unknown.
Mackinac....	Total.....	15	2	.....	.....	1	3	1	2	4	2	.....	.....	.....	.....	2	1	1	2	2	1	.....	3	.....	.....	.....	.....	.....	.....	1	1	1	1	1
	Males.....	4	.....	.....	.....	1	1	.....	.....	1	1	.....	.....	.....	.....	2	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Females..	11	2	.....	.....	.....	2	1	2	3	1	.....	.....	.....	.....	.....	.....	1	2	2	.....	3	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	1
Macomb.....	Total.....	279	14	10	24	17	17	14	33	37	32	25	33	23	--	82	8	8	12	12	14	10	4	10	6	13	10	9	27	19	16	18	1	Unknown.
	Males.....	147	8	4	9	10	10	8	23	21	13	12	17	12	--	51	2	2	9	7	7	3	2	4	2	9	5	6	8	11	9	9	1	Unknown.
	Females..	132	6	6	15	7	7	6	10	16	19	13	16	11	--	31	6	6	3	5	7	7	2	6	4	4	5	3	19	8	7	9	--	Unknown.
Manistee....	Total.....	84	4	3	9	6	11	9	11	4	11	4	6	6	--	49	1	1	2	5	6	2	2	5	1	1	2	2	1	1	1	1	1	1
	Males.....	45	.....	2	6	4	4	8	6	1	3	3	5	3	--	24	1	.....	1	3	3	1	1	4	1	1	1	1	2	1	1	1	1	1
	Females..	39	4	1	3	2	7	1	5	3	8	1	1	3	--	25	.....	1	1	2	3	1	1	1	1	.....	.....	1	.....	1	1	1	1	1
Manitou....	Total.....	6	.....	2	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	.....	.....	.....	
	Males.....	3	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Females..	3	.....	1	.....	1	.....	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	
Marquette..	Total.....	227	19	5	10	14	16	17	22	31	22	20	23	28	--	136	15	9	6	7	7	7	5	7	6	1	7	6	1	1	1	1	5	
	Males.....	141	16	1	5	11	5	11	11	22	12	13	17	17	--	82	7	5	3	4	5	5	4	4	5	1	3	6	1	1	1	1	5	
	Females..	86	3	4	5	3	11	6	11	9	10	7	6	11	--	54	8	4	3	3	2	2	1	3	1	.....	4	.....	.....	.....	.....	.....	1	1



## DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.

145

Mason	Total.....	61	6	4	3	7	3	3	4	3	8	4	6	10	25	1	2	4	2	2	1	3	3	4	1	2	5	4	2				
	Males.....	40	3	4	1	6	2	1	2	2	5	2	5	7	15	---	2	---	---	2	---	2	3	3	---	2	3	4	2				
	Females..	21	3	---	2	1	1	2	2	1	3	2	1	3	8	1	---	4	2	---	1	1	---	1	1	---	2	---	---				
Mecosta	Total.....	73	8	3	4	6	6	3	6	5	13	4	6	9	32	4	3	1	3	3	2	2	2	2	3	2	4	2	1	2	3		
	Males.....	31	4	1	1	3	4	---	2	1	5	3	4	3	14	2	1	---	---	1	---	---	---	---	1	2	3	1	---	2	2		
	Females..	42	4	2	3	3	2	3	4	4	8	1	2	6	18	2	2	1	3	2	3	2	2	1	1	---	1	1	1	1	1		
Menominee	Total.....	9	---	2	1	---	1	---	1	1	---	---	2	1	6	---	1	---	---	---	---	---	2	---	---	---	---	---	---	---			
	Males.....	6	---	1	---	---	1	---	1	1	---	---	2	---	3	---	1	---	---	---	---	---	2	---	---	---	---	---	---	---	---		
	Females..	3	---	1	1	---	---	---	---	---	---	---	---	1	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Midland	Total.....	52	1	2	4	4	6	1	3	5	12	3	5	6	25	3	2	1	2	1	3	2	1	1	3	1	3	2	1	1	1		
	Males.....	18	---	2	1	1	3	---	1	1	5	---	1	3	10	---	---	---	1	---	1	1	1	---	1	---	2	1	---	2	1		
	Females..	34	1	---	3	3	3	1	2	4	7	3	4	3	15	3	2	1	1	1	2	1	---	1	2	1	1	1	1	1	1		
Missaukee	Total.....	21	---	---	---	2	---	1	---	7	4	2	3	2	12	1	1	1	1	1	1	1	---	---	1	1	---	---	---	---			
	Males.....	11	---	---	---	1	---	1	---	3	2	1	2	1	5	1	---	1	1	1	1	1	---	---	---	---	---	---	---	---	---		
	Females..	10	---	---	---	1	---	---	---	4	2	1	1	1	7	---	1	---	---	---	---	---	---	---	1	1	---	---	---	---	---	---	
Monroe	Total.....	310	17	8	21	29	25	18	27	38	41	33	22	26	129	11	7	9	17	11	12	6	7	9	6	8	19	13	10	16	17	3	
	Males.....	159	12	7	9	12	14	7	12	22	22	17	12	13	61	9	1	6	5	3	9	3	2	5	3	7	11	8	5	9	10	2	
	Females..	148	4	1	12	16	11	10	15	16	19	21	10	13	65	2	6	3	12	8	3	3	5	4	3	1	8	5	5	7	7	1	
Unknown	3	1	---	---	1	---	1	---	---	---	---	---	---	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Montcalm	Total.....	193	10	10	11	18	15	15	15	21	30	22	10	20	91	7	5	7	13	8	5	9	3	8	2	7	4	5	10	3	6	3	
	Males.....	95	8	2	6	12	7	7	4	11	11	9	7	11	52	4	2	2	6	2	1	3	1	4	1	5	3	1	4	---	3	1	
	Females..	101	2	8	5	6	8	8	11	9	18	13	3	9	37	3	3	5	9	6	4	6	2	4	1	2	1	4	6	3	8	2	
Unknown	2	---	---	---	---	---	---	---	1	1	---	---	---	---	2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---





Osceola.....	Total.....	89	6	4	3	4	7	2	12	10	12	10	7	12	53	2	3	3	8	3	3	2	2	1	2	4	1	2
	Males.....	44	6	2	2	2	2	1	6	4	5	4	4	6	32	1	.....	.....	3	1	2	1	1	.....	1	1	1	.....
	Females..	45	.....	2	1	2	5	1	6	6	7	6	3	6	20	1	3	.....	5	2	1	1	1	1	.....	1	3	2
Oisego.....	Males.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females..	249	26	22	18	20	18	13	19	20	24	19	25	2	112	8	8	11	9	11	8	4	5	8	9	6	12	4
Ottawa.....	Total.....	133	16	10	8	12	8	10	10	12	11	14	7	13	2	5	4	7	4	5	4	2	3	4	5	4	7	2
	Males.....	116	10	12	10	6	12	8	8	7	9	10	12	12	.....	53	4	1	7	5	6	4	2	4	4	2	5	2
	Females..	26	1	1	4	5	1	1	4	1	3	2	2	1	.....	9	.....	.....	1	1	1	1	.....	.....	.....	1	1	.....
Presq' e Isle	Total.....	11	.....	1	2	3	1	.....	2	.....	1	1	1	.....	2	.....	.....	.....	.....	1	.....	1	.....	.....	.....	1	1	.....
	Males.....	15	1	.....	2	2	.....	1	2	1	3	1	1	1	.....	7	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....
	Females..	6	.....	.....	.....	.....	1	1	.....	1	2	1	.....	.....	1	.....	1	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....
Roscommon..	Total.....	524	28	25	42	43	38	33	46	61	58	50	42	60	.....	228	43	15	25	34	15	19	13	15	11	10	14	8
	Males.....	257	7	12	19	25	17	18	27	37	23	21	23	28	.....	108	22	8	11	13	15	6	11	5	10	4	6	9
	Females..	265	21	13	23	17	19	15	19	24	34	29	19	32	.....	119	21	7	10	12	19	9	8	5	7	4	5	7
Saginaw.....	Total.....	2	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Males.....	135	4	6	10	14	12	12	5	9	14	17	18	14	.....	64	12	2	5	4	9	.....	5	2	4	4	5	6
	Females..	71	2	4	8	8	6	7	3	10	5	9	6	.....	33	7	2	2	2	.....	.....	1	3	4	3	4	2	1
Sanilac.....	Total.....	63	2	2	2	6	6	5	2	6	4	11	9	8	.....	30	5	.....	3	2	7	.....	5	1	1	.....	2	2
	Males.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females..	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Schoolcraft.	Total.....	4	.....	.....	.....	.....	.....	.....	1	1	.....	1	.....	1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Males.....	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females..	2	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....





## DEATHS—BY COUNTIES, BY

		DEATHS—BY COUNTIES, B																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Unknown	15	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females	35	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Males	49	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	84	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wexford	1	1	1	1																	

**EXHIBIT I.—***Counties and Townships in which it is Reported that no Deaths Occurred in 1878, showing Population in 1874, by Sex.*

COUNTIES.	TOWNSHIPS HAVING NO DEATHS IN 1878.	POPULATION, 1874.			COUNTIES.	TOWNSHIPS HAVING NO DEATHS IN 1878.	POPULATION, 1874.		
		Total.	Males.	Fe- males.			Total.	Males.	Fe- males.
Total.....		9,270	5,186	4,084					
Alcona.....	Comins..... <sup>a</sup>				Mason.....	Eden..... <sup>a</sup>			
Alpena.....	Ossineke.....	110	78	32		Lincoln.....	131	73	58
	Forest Home.....	242	133	109		Summit.....	271	148	123
Antrim.....	Helena.....	539	299	240		Fork.....	153	88	65
	Kearney..... <sup>a</sup>				Mecosta.....	Martiny..... <sup>a</sup>			
	Mancelona.....	108	66	42		Morton..... <sup>a</sup>			
Baraga..... <sup>a</sup>	Arvon..... <sup>a</sup>				Midland.....	Geneva.....	131	81	50
	Beaver.....	170	91	79	Missaukee..	Richland..... <sup>a</sup>			
Bay.....	Mason..... <sup>a</sup>					West Branch.....	64	52	12
	Moffit..... <sup>a</sup>				Montcalm..	Fairplain.....	929	518	411
	Colfax.....	79	35	44		Blue Lake.....	297	180	117
	Gilmore.....	504	272	232	Muskegon..	Cedar Creek.....	291	165	126
Benzie.....	Lake.....	40	22	18		Dayton.....	975	523	452
	Weldon.....	53	28	25	Newaygo...	Monroe.....	168	102	66
Cheboygan..	Burt.....	126	66	60					
	Frost..... <sup>a</sup>				Ogemaw... <sup>a</sup>	Churchill..... <sup>a</sup>			
Clare.....	Hayes..... <sup>a</sup>					Cumming..... <sup>a</sup>			
	Summerfield.....	134	73	61		Klacking..... <sup>a</sup>			
	Winterfield.....	28	13	15	Ontonagon.	Carp Lake.....	76	52	24
Crawforda	Frederick..... <sup>a</sup>					Charlton..... <sup>a</sup>			
	Grayling..... <sup>a</sup>					Corwith..... <sup>a</sup>			
Delta.....	Baldwin.....	261	169	92	Otsego..... <sup>a</sup>	Dover..... <sup>a</sup>			
	Nahma.....	164	87	77		Elmira..... <sup>a</sup>			
Emmet.....	Center..... <sup>a</sup>					Hayes..... <sup>a</sup>			
G. Traverse	Grant.....	311	158	153		Livingston... <sup>a</sup>			
Huron.....	Bloomfield.....	148	80	68	Saginaw....	James..... <sup>a</sup>			
	Grant.....	51	31	20		Jonesfield.....	194	114	80
Iosco.....	Plainfield.....	119	71	48		Austin.....	465	246	219
	Cherry Valley..	104	50	54	Sanilac.....	Elmer.....	64	33	31
Lake.....	Eden..... <sup>a</sup>					Evergreen.....	98	53	45
	Glencoe..... <sup>a</sup>				Tuscola....	Geneva.....	207	114	93
	Lake.....	104	72	32		Watertown.....	804	424	380
Manistee..	Morilla.....	133	71	62		Antioch.....	163	84	79
	Springdale.....	49	28	21		Boon..... <sup>a</sup>			
Marquette	Forsyth.....	34	25	9	Wexford...	Henderson.....	75	45	30
						Sherman..... <sup>a</sup>			
						Springville.....	103	73	30

<sup>a</sup> Organized since Census was taken.



Table XI. shows the number of deaths in Michigan in 1878, by sex and by color of decedents. The last column in the table contains the per cent. of decedents of each color to decedents of all colors, and shows that 97.60 per cent. of all the decedents were white. By reference to page 20 it may be seen that 98.73 per cent. of all the children born were white, and by reference to page 77 it appears that 97.91 per cent. of all the persons married were white.

TABLE XI.—*Deaths in Michigan during the Year 1878, distinguishing the Color by Number and Proportion of each Sex; and, by Sex, the Per Cent. of Decedents of each Color to Total of All Colors.*

COLOR.	SEX.	Deaths Returned, 1878.	Per Cent. of Deaths of Each Sex to Total of Both Sexes.	Males to 100 Females.	Per Cent. of Deaths of each Color to Total of All Colors, by Sex.
All Colors.....	Total.....	12,766	-----	-----	100.00
	Males.....	6,632	52.16	100.04	100.00
	Females.....	6,082	47.84	-----	100.00
	Unknown.....	52	-----	-----	73.08
White.....	Total.....	12,459	-----	-----	97.60
	Males.....	6,489	52.24	100.39	97.84
	Females.....	5,932	47.76	-----	97.53
	Unknown.....	38	-----	-----	-----
Black.....	Total.....	99	-----	-----	.78
	Males.....	49	49.49	98.00	.74
	Females.....	50	50.51	-----	.82
Mulatto.....	Total.....	58	-----	-----	.45
	Males.....	22	37.93	61.11	.33
	Females.....	36	62.07	-----	.59
Indian.....	Total.....	118	-----	-----	.92
	Males.....	64	54.24	118.52	.97
	Females.....	54	45.76	-----	.89
Unknown.....	Total.....	32	-----	-----	.25
	Males.....	8	44.44	80.00	.12
	Females.....	10	55.56	-----	.16
	Unknown.....	14	-----	-----	26.92
Black and Mulatto.....	Total.....	157	-----	-----	.12
	Males.....	71	45.22	82.56	1.07
	Females.....	86	54.78	-----	1.41

TABLE XII.—*Exhibiting, by Number and by Sex, for the State and Counties, the Color of All Persons Returned as having Died in Michigan during the Year ending December 31, 1878.*

STATE AND COUNTIES.	ALL COLORS,—1878.				WHITE.				BLACK.			MU- LATTO.			INDIAN.			UNKNOWN.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Unknown.
State .....	12,766	6,632	6,082	52	12,459	6,489	5,932	38	99	49	50	58	22	36	118	64	54	32	8	10	14
Alcona .....	19	13	6	..	19	13	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Allegan .....	278	139	138	1	269	135	133	1	1	1	..	4	..	4	4	3	1	..	..	..	..
Alpena .....	60	36	23	1	60	36	23	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Antrim .....	33	15	15	..	32	17	15	..	..	..	..	..	..	..	1	1	..	..	..	..	..
Baraga .....	23	9	14	..	9	5	4	..	..	..	..	..	..	..	14	4	10	..	..	..	..
Barry .....	139	63	76	..	139	63	76	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bay .....	247	142	105	..	245	141	104	..	2	1	1	..	..	..	..	..	..	..	..	..	..
Benzie .....	13	9	4	..	13	9	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Berrien .....	313	161	150	2	302	154	147	1	6	5	1	3	2	1	..	..	2	..	1	1	..
Branch .....	204	109	94	1	204	109	94	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Calhoun .....	260	126	131	3	243	121	119	3	9	2	7	1	1	..	..	..	7	2	5	..	..
Cass .....	213	116	107	..	192	104	88	..	9	3	6	21	8	13	..	..	1	1	..	..	..
Charlevoix .....	32	18	14	..	29	17	12	..	..	..	..	..	..	..	3	1	2	..	..	..	..
Cheboygan .....	71	32	38	1	67	31	35	1	..	..	..	..	..	..	4	1	3	..	..	..	..
Chippewa .....	41	25	16	..	21	13	8	..	..	..	..	..	..	..	20	12	8	..	..	..	..
Clare .....	20	10	9	1	20	10	9	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Clinton .....	247	123	122	..	246	123	121	..	1	..	1	..	..	..	..	..	..	..	..	..	..
Crawford .....	4	3	1	..	4	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delta .....	42	28	14	..	38	24	14	..	..	..	..	..	..	..	4	4	..	..	..	..	..
Eaton .....	273	125	148	..	273	125	148	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Emmet .....	66	38	30	..	39	21	18	..	..	..	..	..	..	..	27	15	12	..	..	..	..
Genesee .....	336	149	137	..	304	148	136	..	2	1	1	..	..	..	..	..	..	..	..	..	..
Gladwin .....	7	5	2	..	7	5	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Grand Traverse .....	49	26	29	..	49	26	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gratiot .....	111	56	61	..	111	56	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hillsdale .....	288	146	142	..	282	142	140	..	2	4	1	1	..	1	..	..	..	..	..	..	..
Houghton .....	283	133	150	3	283	133	150	3	..	..	..	..	..	..	..	..	..	..	..	..	..

\* Includes 8 "Colored," and 1 Negro.

† Includes 2 "Colored."

‡ Includes 11 "Half-breed," 4 White and 1

§ Includes 8 "Half-breed," 1 White and 1

|| 1 White and Indian, and 1 "Half-Indian"

¶ Negro.

\* 2 "Colored."

† 1 White and Indian.

‡ 11 "Half-breed."

§ 8 "Half-breed."



TABLE XII.—CONTINUED.—*Deaths by Counties, by Color, and by Sex.*

COUNTIES.	ALL COLORS,—1878.				WHITE.				BLACK.			MU- LATTO.			INDIAN.			UNKNOWN.		
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
Huron.....	101	54	47	..	101	54	47	..	..	..	..	..	..	..	..	..	..	..	..	..
Ingham.....	193	106	87	..	191	105	86	..	1	1	..	..	..	..	..	..	..	1	..	1
Ionia.....	230	114	115	1	229	113	115	1	..	..	..	..	..	..	..	..	..	1	1	..
Iosco.....	52	33	19	..	52	33	19	..	..	..	..	..	..	..	..	..	..	..	..	..
Isabella.....	75	49	26	..	74	48	26	..	..	..	..	..	..	1	1	..	..	..	..	..
Isle Royal.... <sup>b</sup>	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jackson.....	347	199	157	..	340	188	152	..	7	12	5	..	..	..	..	..	..	..	..	..
Kalamazoo....	281	144	136	1	268	141	127	..	10	2	8	1	..	1	..	..	..	2	1	1
Kalkaska.....	18	9	9	..	18	9	9	..	..	..	..	..	..	..	..	..	..	..	..	..
Kent.....	500	266	291	3	554	264	290	..	3	2	1	..	..	..	..	..	..	3	..	3
Keweenaw....	52	30	21	1	52	30	21	1	..	..	..	..	..	..	..	..	..	..	..	..
Lake.....	22	8	14	..	22	8	14	..	..	..	..	..	..	..	..	..	..	..	..	..
Lapeer.....	180	102	77	1	179	101	77	1	..	..	..	1	1	..	..	..	..	..	..	..
Leelanaw....	49	22	27	..	45	21	24	..	..	..	..	1	..	1	3	1	2	..	..	..
Lenawee.....	330	167	162	1	323	162	160	1	4	3	1	3	2	1	..	..	..	..	..	..
Livingston....	156	72	84	..	156	72	84	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackinac.....	15	4	11	..	5	1	4	..	..	..	..	..	..	10	3	47	..	..	..	..
Macomb.....	279	147	132	..	279	147	132	..	..	..	..	..	..	..	..	..	..	..	..	..
Manistee.....	84	45	39	..	84	45	39	..	..	..	..	..	..	..	..	..	..	..	..	..
Manitou.....	6	3	3	..	6	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Marquette....	227	141	86	..	227	141	86	..	..	..	..	..	..	..	..	..	..	..	..	..
Mason.....	61	40	21	..	54	36	18	..	..	..	..	..	..	7	4	3	..	..	..	..
Mecosta.....	73	31	42	..	70	30	40	..	1	..	1	2	1	1	..	..	..	..	..	..
Menominee....	9	6	3	..	8	5	3	..	..	..	..	..	..	1	1	..	..	..	..	..
Midland.....	52	18	34	..	51	18	33	..	..	..	..	1	..	1	..	..	..	..	..	..
Missaukee....	21	11	10	..	20	10	10	..	..	..	..	1	1	..	..	..	..	..	..	..
Monroe.....	310	159	148	3	308	159	148	1	..	..	..	..	..	..	..	..	..	2	..	2
Montcalm....	198	95	101	2	194	95	99	..	..	..	..	..	..	..	..	..	..	4	..	2
Muskegon....	171	88	83	..	171	88	83	..	..	..	..	..	..	..	..	..	..	..	..	..
Newaygo.....	78	43	33	2	76	42	33	1	1	1	..	..	..	..	..	..	..	1	..	1
Oakland.....	331	172	156	3	327	171	154	2	1	1	..	2	..	2	..	..	..	1	..	1
	76	34	42	..	71	31	40	..	..	..	..	..	..	5	3	2	..	..	..	..
	6	..	6	..	6	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..
	33	14	19	..	33	14	19	..	..	..	..	..	..	..	..	..	..	..	..	..
	44	45	..	..	88	43	45	..	..	..	..	..	..	1	1	..	..	..	..	..

County clerk to the State Department.  
<sup>a</sup> 6 White and Indian.



TABLE XII.—CONTINUED.—*Deaths by Counties, by Color, and by Sex.*

COUNTIES.	ALL COLORS,—1878.				WHITE.				BLACK.			MU-LATTO.			INDIAN.			UNKNOWN.		
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
Otsego.....	2	2			2	2														
Ottawa.....	249	133	116		249	133	116													
Presque Isle.	26	11	15		26	11	15													
Roscommon.	6	6			6	6														
Saginaw.....	524	257	265	2	513	250	262	1				1		1	8	7	1	2		1
Sanilac.....	135	71	63	1	134	71	63											1		1
Schoolcraft...	4	2	2		4	2	2													
Shiawassee ..	137	71	66		137	71	66													
St. Clair.....	319	171	148		316	169	147		1		1							2	2	
St. Joseph....	204	102	102		204	102	102													
Tuscola.....	150	79	71		148	78	70								2	a	1			
Van Buren....	248	135	112	1	239	132	106	1	3	b	2	1	4	1	3		2			
Washtenaw...	330	176	153	1	320	171	148	1	6	b	4	c	3		3			1	1	
Wayne.....	1,949	1,038	896	15	1,913	1,018	881	14	26	b	14	12	8	5	3	1	1		1	
Wexford.....	86	49	36	1	86	49	36	1												

a "Red."

b 1 "Colored."

c 2 "Colored."

The proportion of decedents of each nativity for each of the years 1874–1878 may be studied in Exhibit 6. The usual proportion of decedents in this State is about four-fifths of native of U. S. A., the average proportion of decedents who were natives of U. S. A. for the seven years 1872–1878 being 80.26 per cent., and of the foreign-born 16.93 per cent.

EXHIBIT 6.—*Nativity of Decedents in Michigan during each of the Years 1874–1878, according to the Returns.*

NATIVITY OF DECEDENTS.	DEATHS, 1874.		DEATHS, 1875.		DEATHS, 1876.		DEATHS, 1877.		DEATHS, 1878.		Av. for 9 years ending with 1877.	
	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.
All Nativities.....	12,500	100.00	11,990	100.00	12,576	100.00	12,919	100.00	12,766	100.00	11,917	100.00
Native.....	9,937	79.50	9,573	79.84	10,147	80.69	10,305	79.77	10,183	79.77	9,606	80.61
Foreign.....	2,121	17.02	2,106	17.57	2,078	16.52	2,251	17.42	2,237	17.52	1,949	16.35
Unknown.....	435	3.48	311	2.59	351	2.79	363	2.81	346	2.71	362	3.04

TABLE XIII.—*Exhibiting, by Number and by Sex, for the State and Counties, the Nativity of all Persons Returned as having Died in Michigan during the Year ending December 31, 1878.*

STATE AND COUNTIES.	ALL NATIVITIES, 1878.				NATIVE.				FOREIGN.				UNKNOWN.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
State.....	12,766	6,632	6,082	52	10,183	5,222	4,911	50	2,237	1,217	1,019	1	346	193	132	1
Alcona.....	19	13	6	—	11	8	3	—	7	4	3	—	1	1	—	—
Allegan.....	278	139	138	1	237	113	123	1	32	21	11	—	9	5	4	—
Alpena.....	60	36	23	1	47	30	16	1	12	6	6	—	1	—	1	—
Antrim.....	33	18	15	—	25	13	12	—	5	2	2	—	3	2	1	—
Baraga.....	23	9	14	—	22	8	14	—	1	1	—	—	—	—	—	—
Barry.....	139	63	76	—	127	59	68	—	10	4	6	—	2	—	2	—
Bay.....	247	142	105	—	190	110	80	—	51	28	23	—	6	4	2	—
Benzle.....	13	9	4	—	11	8	3	—	2	1	1	—	—	—	—	—
Berrien.....	313	161	150	2	261	132	127	2	41	20	21	—	11	9	2	—
Branch.....	294	109	94	1	192	101	90	1	7	6	1	—	5	2	3	—
Calhoun.....	260	126	131	3	235	111	112	2	32	15	17	—	3	—	2	1
Cass.....	223	116	107	—	215	111	104	—	6	4	2	—	2	1	1	—
Charlevoix..	32	18	14	—	23	13	10	—	7	5	2	—	2	—	2	—
Cheboygan..	71	32	38	1	36	14	21	1	10	4	6	—	25	14	11	—
Chippewa...	41	25	16	—	27	18	9	—	12	6	6	—	2	1	1	—
Clare.....	20	10	9	1	16	6	9	1	2	2	—	—	2	2	—	—
Clinton.....	247	125	122	—	215	110	105	—	27	13	14	—	5	2	3	—
Crawford...	4	3	1	—	4	3	1	—	—	—	—	—	—	—	—	—
Delta.....	42	28	14	—	26	17	9	—	15	10	5	—	1	1	—	—
Eaton.....	273	125	148	—	251	112	139	—	15	8	7	—	7	5	2	—
Emmet.....	66	36	30	—	57	30	27	—	4	3	1	—	5	3	2	—
Genesee.....	306	149	157	—	256	117	139	—	48	31	17	—	2	1	1	—
Gladwin....	7	5	2	—	3	2	1	—	2	1	1	—	2	2	—	—
Gr. Traverse	49	20	29	—	46	19	27	—	2	1	1	—	1	—	1	—
Gratiot.....	111	50	61	—	103	46	57	—	6	3	3	—	2	1	1	—
Hillsdale...	288	146	142	—	261	134	127	—	26	8	12	—	7	4	3	—
Houghton...	263	155	105	3	203	113	87	3	59	41	18	—	1	1	—	—
Huron.....	101	54	47	—	69	39	30	—	39	15	15	—	2	—	2	—
Ingham.....	193	106	87	—	164	89	75	—	25	15	10	—	4	2	2	—
Ionia.....	230	114	115	1	203	100	102	1	20	11	9	—	7	3	4	—
Iosco.....	52	33	19	—	39	25	14	—	12	7	5	—	1	1	—	—
Isabella.....	75	49	26	—	65	44	21	—	9	4	5	—	1	1	—	—

TABLE XIII.—CONTINUED.—*Deaths by Counties, Nativity, and Sex.*

COUNTIES.	ALL NATIVITIES, 1878.				NATIVE.				FOREIGN.				UNKNOWN.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
Isle Royal.*	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Jackson.....	347	190	157	---	203	161	142	---	40	25	15	---	4	4	---	---
Kalamazoo....	281	144	136	1	227	113	113	1	37	22	15	---	17	9	8	---
Kalkaska.....	18	9	9	---	17	8	9	---	1	1	---	---	---	---	---	---
Kent.....	560	266	291	3	434	200	231	3	102	56	46	---	24	10	14	---
Keweenaw....	52	30	21	1	41	23	17	1	8	5	3	---	3	2	1	---
Lake.....	22	8	14	---	18	5	13	---	3	2	1	---	1	1	---	---
Lapeer.....	180	102	77	1	147	90	56	1	29	10	19	---	4	2	2	---
Leelanaw....	49	22	27	---	33	15	18	---	16	7	9	---	---	---	---	---
Lenawee.....	330	167	162	1	276	141	134	1	54	26	28	---	---	---	---	---
Livingston....	156	72	84	---	130	60	70	---	24	12	12	---	2	---	2	---
Mackinac....	15	4	11	---	14	4	10	---	1	---	1	---	---	---	---	---
Macomb.....	279	147	132	---	213	113	100	---	64	33	31	---	2	1	1	---
Manistee.....	84	45	39	---	63	31	32	---	20	14	6	---	1	---	1	---
Manitou.....	6	3	3	---	3	2	1	---	3	1	2	---	---	---	---	---
Marquette....	227	141	86	---	179	109	70	---	46	30	16	---	2	2	---	---
Mason.....	61	40	21	---	56	35	21	---	5	5	---	---	---	---	---	---
Mecosta.....	73	31	42	---	54	23	31	---	13	6	9	---	4	2	2	---
Menominee..	9	6	3	---	6	3	3	---	2	2	---	---	1	1	---	---
Midland.....	52	18	34	---	41	13	28	---	10	4	6	---	1	1	---	---
Missaukee....	21	11	10	---	17	9	8	---	4	2	2	---	---	---	---	---
Monroe.....	310	159	148	3	243	118	122	3	63	39	24	---	4	2	2	---
Montcalm....	198	95	101	2	166	81	83	2	27	11	16	---	5	3	2	---
Muskegon....	171	88	83	---	125	62	63	---	39	22	17	---	7	4	3	---
Newaygo....	78	43	33	2	68	35	31	2	7	5	2	---	3	3	---	---
Oakland.....	331	172	156	3	275	141	131	3	53	30	23	---	3	1	2	---
Oceana.....	76	34	42	---	65	30	35	---	8	3	5	---	3	1	2	---
Ogemaw.....	6	-----	6	---	2	-----	2	---	4	-----	4	---	---	---	---	---
Ontonagon....	33	14	19	---	22	8	14	---	11	6	5	---	---	---	---	---
Osceola.....	89	44	45	---	73	37	36	---	14	6	8	---	2	1	1	---
Otsego.....	2	2	---	---	2	2	---	---	---	---	---	---	---	---	---	---
Ottawa.....	249	133	116	---	185	92	93	---	58	37	21	---	6	4	2	---
Presque I....	26	11	15	---	12	4	8	---	5	3	2	---	9	4	5	---

\* No returns from the county clerk to the State Department.



TABLE XIII.—CONTINUED.—*Deaths by Counties, Nativity, and Sex.*

COUNTIES.	ALL NATIVITIES, 1878.				NATIVE.				FOREIGN.				UNKNOWN.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
Roscommon.	6	6	-----	-----	5	5	-----	-----	1	1	-----	-----	-----	-----	-----	-----
Saginaw.....	524	257	265	2	366	178	187	1	131	65	65	1	27	14	13	---
Sanilac.....	135	71	63	1	98	52	45	1	36	18	18	---	1	1	-----	-----
Schoolcraft..	4	2	2	-----	3	1	2	-----	1	1	-----	-----	-----	-----	-----	-----
Shiawassee..	137	71	66	-----	124	65	59	-----	12	6	6	-----	1	-----	1	---
St. Clair.....	319	171	148	-----	227	118	109	---	91	52	39	---	1	1	-----	-----
St. Joseph....	204	102	102	-----	170	87	83	---	28	11	17	---	6	4	2	---
Tuscola.....	150	79	71	-----	122	65	57	---	26	13	13	---	2	1	1	---
Van Buren....	248	135	112	1	223	118	104	1	20	13	7	---	5	4	1	---
Washtenaw..	339	176	153	1	248	128	119	1	80	48	32	---	2	---	2	---
Wayne.....	1,949	1,038	896	15	1,392	745	632	15	492	257	235	---	65	30	29	---
Wexford.....	86	49	36	1	65	37	27	1	15	6	9	---	6	6	-----	-----

## CAUSES OF DEATH.

This is certainly the most important subject which is studied in connection with Vital Statistics. The direct causes of the deaths are here introduced, to try and discover where in the State the deaths took place, what were the diseases most fatal, at what season of the year they occurred, and whether they were more fatal among the young, the middle-aged, or the old. One cause of regret is that greater accuracy cannot be obtained in the record of the causes of death.

In Table XIV. may be seen the several classes which include the causes of death in Michigan during each of the years 1874-1878. Class I.,—Zymotic diseases,—represents nearly one-quarter (24.45 per cent.) of all the deaths during the year 1878, and for the seven years 1872-1878 the proportion of deaths from this class of causes averages 26.47 per cent. Constitutional diseases caused 17.94 per cent. of all the deaths reported for 1878; local diseases caused 27.27 per cent.; developmental diseases caused 14.29 per cent.; and violent deaths composed 5.41 per cent. of all the deaths in 1878. The proportion of deaths from the unknown and unclassified causes was smaller in 1878 than in any previous year except 1876.

TABLE XIV.—*Number of Deaths Returned as having occurred in Michigan from All Causes, and from each Class of Causes, and the Per Cent. of Deaths from each Class of Causes to Deaths from All Causes, for each of the Years 1874 to 1878, inclusive.*

CAUSES OF DEATH, CLASSES.	1874.		1875.		1876.		1877.		1878.		AVERAGE FOR NINE YEARS, END- ING WITH 1877.	
	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.
All Causes.....	12,500	100.00	11,990	100.00	12,576	100.00	12,919	100.00	12,766	100.00	11,917	100.00
I.—Zymotic.....	3,260	26.08	2,798	23.34	3,094	24.60	3,319	25.69	3,121	24.45	3,276	27.49
II.—Constitutional.	2,117	16.93	2,190	18.27	2,348	18.67	2,454	19.00	2,290	17.94	2,124	17.82
III.—Local Diseases	3,697	29.58	3,565	29.73	3,647	29.00	3,506	27.14	3,481	27.27	3,377	28.34
IV.—Developmental	1,256	10.05	1,353	11.28	1,438	11.59	1,527	11.82	1,825	14.29	1,164	9.77
V.—Violent Deaths, Unknown and Un- classified.....	656	5.25	646	5.39	747	5.94	654	5.06	691	5.41	603	5.06
	1,514	12.11	1,438	11.99	1,282	10.19	1,459	11.29	1,358	10.61	1,372	11.51

Exhibit 7 shows, by months, the number of deaths in Michigan during the year 1878 from all causes and from each class of causes. From Zymotic diseases, the largest number occurred in September; from constitutional diseases the largest number occurred in April; from local diseases and from developmental diseases, the largest number occurred in December; and the largest number of violent deaths were returned for August.

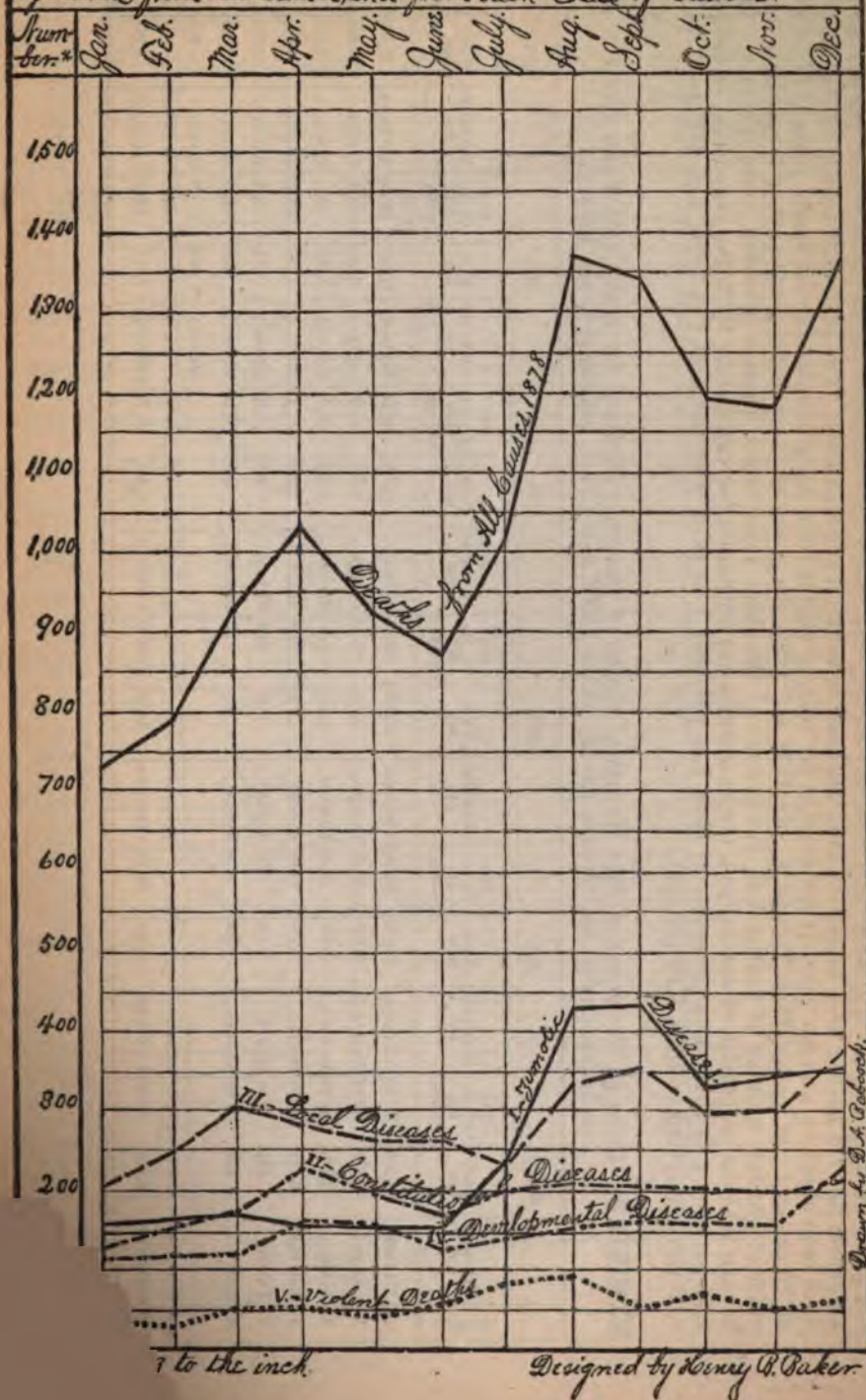
EXHIBIT 7.—*By Months, the Number of Deaths Returned as having Occurred in Michigan from All Causes and from each Class of Causes during the year 1878.*

CAUSES OF DEATH, CLASSES.	YEAR, 1878.	MONTHS OF DEATH, 1878.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
All Causes.....	12,766	730	780	803	1029	923	870	1,017	1,371	1,543	1,190	1,151	1,369
I.—Zymotic.....	3,121	162	186	173	163	136	136	240	430	433	324	345	360
II.—Constitutional.	2,290	127	156	178	195	197	170	200	269	265	202	200	212
III.—Local Diseases	3,481	203	249	294	288	263	262	330	337	333	280	300	379
IV.—Developmental	1,825	113	116	121	163	162	127	141	153	167	165	160	233
V.—Violent Deaths, Unknown and Un- classified.....	691	57	57	51	33	44	33	84	31	55	68	32	65
	1,358	86	72	263	126	39	96	217	149	130	122	124	117



# Diagram No. 4.

Deaths Returned as having occurred in Michigan in 1878,  
by months, from All Causes, and from each Class of Causes.





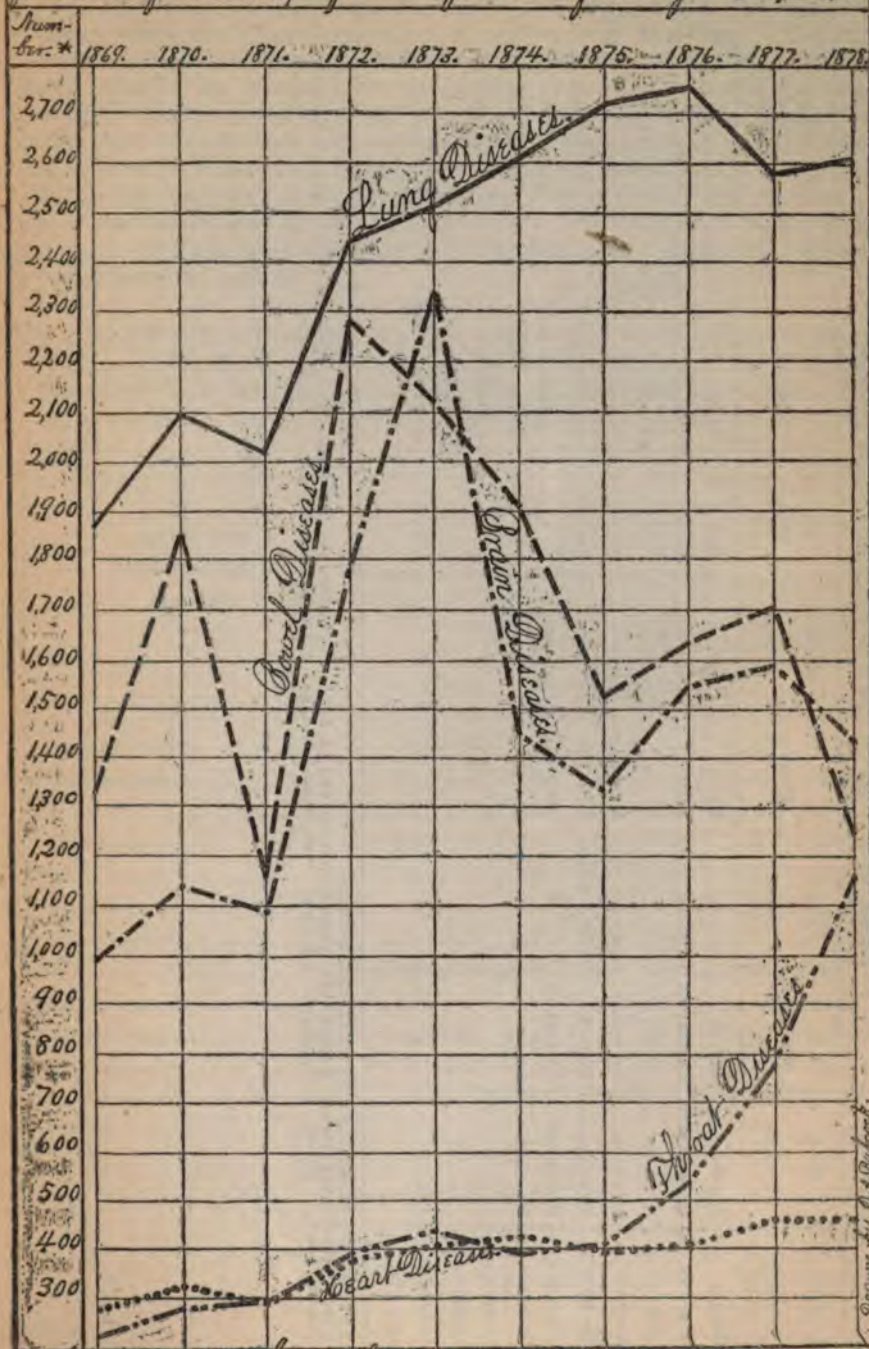
In Exhibit 8 the number and per-cent. of deaths from certain groups of causes are shown. The number of deaths from the group of lung diseases is greater than from any other group, more than one-fifth (20.44 per cent.) of the deaths from all causes in 1878 having been caused by lung diseases, as shown by this exhibit. The year 1878 seems, in this regard, to have been about an average year, as the average per cent. of deaths from lung diseases for the seven years 1872-1878 was 20.25 per cent., as figured from Exhibit 8. In 1878 and 1873, the group of brain diseases was next to lung diseases in the order of greatest number of deaths first, but in each of the other years bowel diseases preceded brain diseases. It may be seen that the proportion of deaths from throat diseases has constantly increased since 1872, the proportion in 1872 being 2.92 per cent.; in 1873, 3.04 per cent.; in 1874, 3.16 per cent.; in 1875, 3.39 per cent.; in 1876, 4.30 per cent.; in 1877, 6.05 per cent.; and in 1878, 9.09 per cent.

EXHIBIT 8.—*Order of Succession of Five Groups of Causes of Deaths in Michigan for each of the Years 1873 to 1876, inclusive, and of Six Groups for the Years 1877 and 1878, according to the Returns.*

ORDER.	1873.			1874.			1875.			1876.			1877.			1878.		
	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.
....	All Causes.	14,258	100.00	All Causes.	12,500	100.00	All Causes.	11,990	100.00	All Causes.	12,576	100.00	All Causes.	12,919	100.00	All Causes.	12,765	100.00
1	Lungs ..	2,511	17.61	Lungs...	2,605	20.81	Lungs...	2,720	22.69	Lungs...	2,753	21.89	Lungs...	2,884	20.00	Lungs...	2,600	20.44
2	Brain....	2,326	16.38	Bowels..	1,907	15.25	Bowels..	1,521	12.69	Bowels..	1,633	12.98	Bowels..	1,702	13.17	Brain....	1,440	11.25
3	Bowels..	2,121	14.89	Brain....	1,450	11.60	Brain....	1,338	11.16	Brain....	1,549	12.31	Brain....	1,592	12.32	Bowels..	1,347	9.77
4	Throat ..	434	3.04	Heart....	420	3.35	Throat..	406	3.39	Throat..	541	4.30	Throat..	721	6.05	Throat..	1,160	9.09
5	Heart....	402	2.83	Throat..	395	3.16	Heart....	391	3.26	Heart....	403	3.22	Heart....	460	3.55	Heart....	452	3.54
													Liver....	126	.98	Liver....	143	1.12
1-5	5 Groups	7,891	55.74	5 Groups	6,777	54.22	5 Groups	6,376	53.19	5 Groups	6,881	54.72	5 Groups	7,245	56.08	5 Groups	7,031	55.23

# Diagram No. 5.

Deaths Returned as having occurred in Michigan from each of Five Groups of Causes, for each of the Years 1869-1878.



\* Scale 388 to the inch.

Designed by Henry B. Baker.

EXHIBIT J.—*Eleven Geographical Divisions of the State, formed for the purpose of facilitating the study of Causes of Death, with a list of Counties included in each Division.*

Upper Peninsular.	North- western.	Northern.	North- eastern.	Western.	Northern Central.	Bay and Eastern.	Central.	South- western.	Southern Central.	South- eastern.
Baraga.....	Benzie.....	Antrim.... <sup>e</sup>	Alcona.....	Kent.....	Clare.....	Bay .....	Barry .....	Allegan....	Branch.....	Macomb.
Chippewa.... <sup>a</sup>	Gr. Traverse.	Charlevoix.	Alpena.....	Lake.....	Gladwin .....	Huron.....	Clinton.....	Berrien....	Calhoun.....	Monroe.
Delta.....	Leelanaw...	Cheboygan.	Iosco..... <sup>f</sup>	Mason.....	Isabella..... <sup>b</sup>	Lapeer....	Eaton .....	Cass.....	Hilldale....	Oakland.
Houghton...	Manistee....	Crawford..	Ogemaw .....	Muskegon...	Mecosta.....	Saginaw....	Genesee.....	Vnn Buren.	Jackson.....	Wayne. <sup>k</sup>
Isle Royal...	Manitou.....	Emmet.....	Presque Isle	Newaygo...	Midland.....	Sanilac....	Gratiot.....		Kalamazoo...	
Keweenaw...	Missaukee...	Kalkaska..		Oscana.....	Roscommon..	St. Clair....	Ingham .....		Lenawee....	
Mackinac.... <sup>b</sup>	Wexford .....	Otsego .....		Osceola ....		Tuscola....	Ionia .....		St. Joseph...	
Marquette...				Ottawa.....			Livingston...		Washtenaw..	
Menominee. <sup>c</sup>							Montcalm....			
Ontonagon...							Shiawassee.. <sup>j</sup>			
Schoolcraft. <sup>d</sup>										

No returns of deaths from the following townships:

<sup>a</sup> Detour and Sugar Island. <sup>b</sup> Hendricks, Holmes, Newton, and St. Ignace. <sup>c</sup> Cedarville, Ingallston, Menominee, and Spaulding. <sup>d</sup> Munising and Onola.  
<sup>e</sup> Central Lake. <sup>f</sup> Oscola. <sup>g</sup> Montague. <sup>h</sup> Rolland. <sup>i</sup> St. Clair. <sup>j</sup> Burns. <sup>k</sup> Grosse Point.



Table XV. shows the number and proportion of deaths from all causes in 1878 in each of the geographical divisions of Michigan, and the per cent. of deaths from each class of causes to deaths from all causes. The southeastern division shows the largest proportion of deaths from all causes. The proportion of deaths from Zymotic diseases was greatest in the northern-central division, least in the western; the proportion from constitutional diseases was greatest in the southern-central, least in the northern-central; the proportion from local diseases was greatest in the southwestern, least in the northern; the proportion from developmental diseases was greatest in the northwestern, least in the northern; the proportion from violent deaths was greatest in the upper peninsular, least in the northern; and the proportion of deaths from the unknown and unclassified causes was greatest in the northern, least in the southern-central division.

TABLE XV.—*Exhibiting for the State and for each of Eleven Geographical Divisions of the State, the Number of Deaths Returned, and the Per Cent. of Deaths in each Division to Total Deaths in the State during the Year 1878; also, the Per Cent. of Deaths from each Class of Causes to Deaths from All Causes.*

STATE AND GEOGRAPHICAL DIVISIONS.	DEATHS REPORTED, 1878.		PER CENT. OF DEATHS FROM EACH CLASS OF CAUSES TO DEATHS FROM ALL CAUSES, BY GEOGRAPHICAL DIVISIONS.					
	Num- ber.	Per Ct. of Total.	Class I. Zymotic Diseases.	Class II. Consti- tutional Diseases.	Class III. Local Diseases.	Class IV. Develop- mental Diseases.	Class V. Violent Deaths.	Unk- and Un- classi- fied.
STATE.....	12,766	100.00	24.45	17.94	27.27	14.29	5.41	10.64
Upper-Peninsular.....	709	5.55	25.53	10.30	18.19	14.25	9.87	21.86
North-western.....	308	2.41	24.35	15.91	20.78	19.15	9.42	10.39
Northern.....	226	1.77	33.63	11.06	15.93	6.19	3.10	30.09
North-eastern.....	163	1.28	25.15	17.79	20.86	8.59	8.59	19.02
Western.....	1,306	10.23	19.83	19.07	25.73	15.77	7.50	12.10
Northern-Central.....	233	1.83	27.04	10.30	24.89	17.17	9.44	11.16
Bay and Eastern.....	1,656	12.97	25.06	16.85	25.72	14.07	6.34	11.96
Central.....	1,990	15.59	24.87	19.55	29.65	13.62	4.17	8.14
South-western.....	1,062	8.32	25.33	17.61	32.11	11.02	5.74	8.19
Southern-Central.....	2,244	17.58	23.08	20.10	31.51	14.22	4.06	7.04
South-eastern.....	2,869	22.47	25.41	18.65	26.49	15.72	3.87	9.86



Nervous System...	1,330	3	34	3	3	9	22	3	38	23	31	23	4	1	3	26	1	5	54	20	8	15			
as of Circulation...	448	---	11	1	---	6	6	---	15	13	15	4	---	1	---	3	8	---	0	13	---	2			
Respiratory Organs	838	---	22	7	1	8	16	---	35	20	16	12	2	3	1	16	---	5	22	2	2	3			
Digestive Organs..	507	---	18	4	5	1	5	9	2	14	15	9	10	---	1	12	---	11	13	1	3	6			
Urinary Organs...	183	1	7	---	---	4	3	---	5	6	6	5	1	1	---	4	---	4	4	9	1	2			
Generative Organs.	18	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---	1	1	1	---	---			
Organs of Locomotion..	13	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
as. of Integumentary System.	82	---	1	---	---	2	---	2	3	---	2	2	---	1	---	1	---	5	4	---	1	---			
IV.—1. Developmental Dis. of Children	933	---	14	7	---	11	15	1	14	10	22	15	1	1	5	24	2	1	19	23	4	13			
2. Developmental Dis. of Women.	184	---	3	2	1	5	3	---	7	1	1	1	---	---	---	6	---	1	1	2	6	1	1		
3.—Developmental Dis. of Old People	579	---	13	---	---	5	8	---	8	4	19	10	2	1	4	10	---	9	2	24	4	3			
4.—Diseases of Nutrition...	129	---	2	---	---	1	1	1	4	3	2	1	---	1	---	---	---	2	3	---	1	---			
V.—1. Accident or Negligence	415	---	13	2	2	5	13	---	13	6	8	6	2	1	4	2	---	5	4	1	3	1	4	2	
2. Battle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
3. Homicide	11	---	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---	3	---	---			
4. Suicide	63	---	1	---	1	---	---	---	3	1	2	1	---	---	---	---	---	---	---	---	---	---			
5. Execution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
6. Violent Deaths...	202	3	9	1	---	1	4	1	1	3	4	4	1	---	1	1	---	1	4	6	---	---			
CLASS I.—ZYMOTIC.....	3,121	6	62	9	13	8	35	86	82	39	45	78	4	36	1	6	83	1	10	85	11	43	3	13	37
I.—ORDER 1. Miasmatic.....	3,083	6	61	9	13	8	34	85	81	39	44	76	4	35	1	6	82	1	9	83	14	63	3	13	36
1. Small-pox.....	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2. Measles.....	16	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---
3. Scarletina.....	429	---	7	---	4	19	---	---	8	4	1	2	2	11	---	5	---	2	---	5	---	---	---	2	---
4. Diphtheria.....	887	3	29	10	---	17	16	---	27	16	10	47	---	20	---	52	---	---	47	17	---	6	18	---	---
5. Quinsy.....	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6. Croup.....	236	---	6	2	1	1	3	16	12	2	---	9	---	2	---	1	---	---	3	1	---	---	---	3	---





[illegible]





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### VIII.—ORDER 4. Digestive Organs.

[illegible]

TABLE XVI.—CONTINUED.—*Causes of Death, Classified.*

CAUSES OF DEATH,—1878.	COUNTIES.—1878.																									
	STATE.	Alcona.	Allagan.	Alpena.	Antrim.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.	Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Eaton.	Emmet.	Genesee.	Gladwin.	Gratiot.	
9. Stricture of Intestines.....	4																				1					
10. Fistula.....	1																							1		
11. Stomach Diseases.....	74	2				1	2	1	1	1	2	4	1					2			2	2	1		1	
12. Pancreas Disease.....																										
13. Hepatitis.....	10	1																					1			
14. Jaundice.....	22					1			1	1	1															
15. Liver Disease.....	111	4			1	2	2	1	2	1	1		2					3			2	2	6		2	
16. Spleen Disease.....	4																									
17. Bowel Diseases, etc.....	35	3								2	1	1						1			1					
18. Mouth Disease.....																										
III.—ORDER 5. Urinary Organs.....	185	7				4	3			5	6	6	5	1	1			4			4		0	1	1	2
1. Nephritis.....	13					1						1									1				1	
2. Ischuria.....																										
3. Bright's Disease of Kidneys.....	32						1	1	1	1	2	1						2			2		1			
4. Diabetes.....	33	2				2	1		1	2	2	2						1			2		1			
5. Calculus (Gravel, etc.).....	25																									
6. Cystitis.....	11					1						1						1					1			1
7. Kidney Diseases.....	73	5								2	2	1	3	1							1		5			1
III.—ORDER 6. Generative Organs.....	18					1												1			1		1			









TABLE XVI.—CONTINUED.—*Causes of Death, Classified.*

CAUSES OF DEATH,—1878.

COUNTIES,—1878.

	Hilldale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Isabella.	Isle Royal.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Lake.	Lapeer.	Leelanaw.	Lenawee.	Livingston.	Mackinac.	Macomb.	Manistee.	Manitou.	Marquette.	Mason.	Meosco.	Menominee.
All Causes.....	288	263	101	193	230	52	75	....	317	281	18	560	52	22	180	49	330	156	15	279	84	6	227	61	73	9
Specified Causes.....	205	184	83	178	198	47	64	....	329	257	18	516	52	21	166	36	301	136	12	274	80	5	103	59	64	9
Causes not Specified.....	23	79	18	15	32	5	11	....	18	24	....	44	....	1	14	13	29	20	3	5	4	1	34	2	9	....
CLASSES.																										
I.—Zymotic Diseases.....	75	71	14	59	43	21	19	....	116	57	6	138	6	1	49	5	60	18	1	71	23	1	77	14	17	2
II.—Constitutional Diseases.....	71	18	20	33	42	8	7	....	51	61	....	103	3	4	27	12	67	39	7	57	11	1	21	18	6	....
III.—Local Diseases.....	73	44	27	59	72	11	16	....	107	89	11	163	16	8	55	7	113	58	....	87	20	....	37	13	22	2
IV.—Developmental Diseases.....	40	31	13	17	25	2	13	....	43	37	....	81	29	3	21	7	49	13	3	47	17	2	24	9	12	3
V.—Violent Deaths.....	6	19	6	10	16	5	8	....	12	12	1	30	1	5	12	5	11	7	1	12	9	1	34	5	....	2
Unclassified.....	1	3	....	....	....	....	1	....	1	1	....	1	....	....	2	....	1	1	....	....	....	....	....	....	....	....
ORDERS.																										
I.—1. Miasmatic Diseases.....	75	70	13	59	42	20	18	....	114	56	6	138	6	1	49	5	60	18	1	68	23	1	77	14	17	2
2. Enanthic Diseases.....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....
3. Dietic Diseases.....	....	....	1	....	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4. Parasitic Diseases.....	1	....	....	1	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....
II.—1. Diathetic Diseases.....	16	5	3	14	7	1	3	....	13	14	....	20	1	2	7	4	18	12	1	16	....	....	5	3	....	....
2. Tubercular Diseases.....	55	13	17	19	35	7	4	....	38	47	....	83	2	2	20	8	49	27	6	41	11	1	16	15	4	....



III.—1. Diseases of Nervous System.....	26	18	8	24	27	7	4	47	34	3	57	3	4	20	2	53	24	37	7	16	6	5	2		
2. Diseases of Organs of Circulation.....	12	3	4	4	8	1	1	16	13	1	29	1	1	8	2	12	4	14	1	3	2	2	2		
3. Diseases of Respiratory Organs.....	18	16	5	15	15	3	7	20	23	2	26	10	2	14	1	21	17	18	7	9	3	8	8		
4. Diseases of Digestive Organs.....	11	6	8	9	16	2	2	13	14	4	31	2	2	9	1	15	12	10	3	9	5	5	5		
5. Diseases of Urinary Organs.....	5	.....	1	5	4	1	1	7	2	1	14	.....	.....	4	.....	5	.....	5	1	2	1	1	1		
6. Diseases of Generative Organs.....	.....	1	.....	.....	1	.....	.....	1	2	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
7. Diseases of Organs of Locomotion.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....		
8. Dis. of Integumentary System.....	1	1	.....	2	1	1	1	3	1	.....	2	.....	.....	.....	1	6	1	3	1	1	.....	1	1		
IV.—1. Developmental Dis. of Children.....	17	24	6	7	15	2	11	23	14	.....	42	24	3	6	2	19	3	14	11	21	5	5	3		
2. Developmental Dis. of Women.....	3	4	2	1	1	1	1	1	3	.....	6	.....	.....	2	2	3	2	2	6	3	1	1	3		
3. Developmental Dis. of Old People.....	18	1	4	8	5	.....	1	16	19	.....	23	2	.....	8	1	26	7	1	19	1	2	1	4		
4. Diseases of Nutrition.....	2	2	1	1	4	.....	.....	3	1	.....	10	.....	.....	5	2	1	1	8	2	1	2	.....	.....		
V.—1. Accident or Negligence.....	3	10	4	2	8	4	4	7	9	1	16	.....	3	10	4	7	4	1	8	7	1	7	3	7	
2. Battle.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
3. Homicide.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
4. Suicide.....	1	1	1	4	1	.....	.....	.....	2	.....	9	.....	.....	.....	1	3	1	3	.....	.....	.....	.....	.....		
5. Execution.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
6. Violent Deaths.....	2	8	1	4	7	1	4	5	1	.....	5	1	2	2	.....	1	2	1	2	27	2	.....	2		
CLASS I.—ZYMOTIC.....	75	71	14	59	43	21	19	116	57	6	138	6	1	49	5	60	18	1	71	23	1	77	14	17	2
I.—ORDER 1. Miasmatic.....	75	70	13	59	42	20	18	114	56	6	138	6	1	49	5	60	18	1	68	23	1	77	14	17	2
1. Small-pox.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	
2. Measles.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	
3. Scarletina.....	20	26	13	2	4	1	1	4	4	.....	4	.....	1	2	.....	8	1	1	1	18	4	2	.....	.....	
4. Diphtheria.....	19	1	10	9	14	2	1	84	17	.....	64	.....	.....	7	.....	12	5	1	17	1	10	.....	2	.....	
5. Quinsy.....	1	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	
6. Group.....	2	6	.....	3	.....	.....	.....	.....	1	1	15	1	.....	6	.....	2	3	.....	2	1	1	21	1	1	





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TABLE XVI.—CONTINUED.—*Causes of Death, Classified.*

COUNTIES.—1878.

CAUSES OF DEATH,—1878.

IV.—ORDER 3. Dev. Dis. of Old People..

1. Old Age.....

IV.—ORDER 4. Diseases of Nutrition....

1. Atrophy and Debility.....

CLASS V.—VIOLENT DEATHS.....

V.—ORDER 1. Accident or Negligence...

1. Fractures and Contusions.....

2. Wounds.....

3. Burns and Scalds.....

4. Poison.....

5. Drowning.....

6. Suffocation.....

7. Otherwise.....

V.—ORDER 2. In Battle.....

V.—ORDER 3. Homicide.....

1. Murder.....

V.—ORDER 4. Suicide.....

1. Wounds.....

Hillsdale.	Houghton.	Huron.	Ingham.	Iron.	Iosco.	Isabella.	Ipswich Royal.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Lake.	Lapeer.	Leelanaw.	Lenawee.	Livingston.	MacKinnon.	Macomb.	Manistee.	Manitou.	Marquette.	Mason.	Mecosta.	Memorials.
18	1	4	8	5	1	1	1	16	19	16	23	2	2	8	1	26	7		19	1	2	1	1	1	4
18	1	4	8	5	1	1	1	16	19	16	23	2	2	8	1	26	7		19	1	2	1	1	1	4
2	2	1	1	4				3	1	10	10			5	2	1	1		8	2					
2	2	1	1	4				3	1	10	10			5	2	1	1		8	2					
6	19	6	10	16	5	8		12	12	1	30	1	5	12	5	11	7		12	9	1	34	5	7	3
3	10	4	2	8	4	4		7	9	1	16		3	10	4	7	4		8	7	1	7	3	7	
1	4		1	1	1	1		2	1		3					5			2					2	
	1				1				1		1								1						
		1		2		1		2	3	1	4		2	4			2			2			1		
2	1			2		2		1	2		3			4		1									
4	1		2	1	1	1		1	1		2		1	1	2				2	5	1	1		2	
			1						1							1	2					2		2	
		2		1	1	1		1			3		1	1	1				3			4	2	1	
																		</							







	3	2	30	16	12	7	47	8	-	1	5	18	.....	51	10	2	10	28	21	17	27	34	213	6
Nervous System.....	1	4	13	4	3	1	18	4	1	1	2	1	.....	12	1	1	6	11	12	7	16	21	60	2
Organs of Circulation.....	3	-	24	8	9	7	30	7	-	8	3	16	2	1	30	5	15	19	17	6	24	20	108	2
Respiratory Organs.....	3	1	15	9	6	-	18	4	-	-	7	18	1	1	23	6	8	23	14	9	7	11	59	3
Digestive Organs.....	-	-	2	1	3	-	5	-	-	-	-	3	-	-	5	1	4	2	5	1	7	9	17	-
Urinary Organs.....	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	1	-	-	-	1	1	-	1
Generative Organs.....	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	6	-
Organs of Locomotion.....	-	-	-	2	5	-	2	-	-	1	1	-	-	4	-	-	2	4	1	-	4	3	5	-
Integumentary System.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IV.-1. Developmental Dis. of Children.....	6	1	30	18	18	5	9	2	-	5	12	37	2	36	5	-	7	25	12	18	11	19	139	16
2. Developmental Dis. of Women.....	2	-	8	5	2	1	3	3	1	1	2	3	-	3	3	-	2	9	3	5	3	2	31	2
3. Developmental Dis. of Old People.....	1	-	15	9	1	3	22	3	-	-	2	16	-	23	6	1	4	16	9	5	10	37	101	1
4. Diseases of Nutrition.....	-	-	4	2	-	-	10	-	-	-	1	1	-	1	12	-	3	6	5	-	1	1	12	1
V.-1. Accident or Negligence.....	1	1	13	10	12	3	2	3	1	-	6	13	2	1	26	3	-	15	5	5	6	11	41	6
2. Battle.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Homicide.....	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	2	-
4. Suicide.....	-	-	1	-	3	-	1	-	-	-	2	2	-	2	1	-	-	1	-	-	-	1	13	-
5. Execution.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Violent Deaths.....	2	-	4	3	2	2	3	2	-	-	1	6	-	12	1	-	2	6	2	-	4	5	18	2
CLASS I.-ZYMOTIC.....	17	8	70	43	24	17	83	7	1	5	14	2	44	1	135	32	24	69	49	30	47	77	505	25
I.-ORDER 1. Miasmatic.....	17	8	68	43	23	17	83	1	5	14	2	43	4	1	134	32	24	69	48	30	46	76	498	25
1. Small-pox.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
2. Measles.....	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	5	-
3. Scarletina.....	2	2	2	1	3	2	3	-	-	2	-	2	-	17	1	-	2	15	5	3	3	39	138	-
4. Diphtheria.....	8	1	17	6	-	5	20	-	-	-	2	3	-	52	12	-	11	22	13	5	7	4	67	20
5. Quinsy.....	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	-
6. Group.....	-	-	5	4	-	-	2	-	1	-	1	12	-	9	4	-	1	4	4	3	6	-	45	-



[illegible]





[illegible]















TABLE XVII.—CONTINUED.—Specified Causes of Death.

[illegible]







[illegible]

<sup>a</sup> Includes 1 Psoas Abscess.      <sup>b</sup> Chronic.

**Chronic.**





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CAUSES OF DEATH, SPECIFIED.

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**CAUSES OF DEATH, SPECIFIED.**

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**CAUSES OF DEATH, SPECIFIED.**

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Total.....	23	27	17	26	22	28	33	27	36	21	35	36	1	332	367	329	289	329	315	Heart Disease.....	20	5	13	9	12	9	18	17	18	21	25	24	29	37	34	30	8
Males.....	8	13	9	20	14	12	19	15	22	12	21	22	---	187	194	185	154	175	173	"	"	9	2	6	6	2	10	11	10	9	13	11	21	25	19	19	6
Females...	15	14	8	6	8	16	14	12	14	9	14	14	1	145	172	133	135	145	142	"	"	11	3	7	3	6	7	8	6	8	12	12	13	8	12	15	11
Unknown.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	"	"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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**CAUSES OF DEATH, SPECIFIED.**

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		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45		46		47		48		49		50		51		52		53		54		55		56		57		58		59		60		61		62		63		64		65		66		67		68		69		70		71		72		73		74		75		76		77		78		79		80		81		82		83		84		85		86		87		88		89		90		91		92		93		94		95		96		97		98		99		100	
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		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45		46		47		48		49		50		51		52		53		54		55		56		57		58		59		60		61		62		63		64		65		66		67		68		69		70		71		72		73		74		75		76		77		78		79		80		81		82		83		84		85		86		87		88		89		90		91		92		93		94		95		96		97		98		99		100	
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		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		32		33		34		3																																																																																																																																			



TABLE XVII.—CONTINUED.—Specified Causes of Death.

SEX.	MONTHS, 1878.												YEARS.					CAUSES OF DEATH.	AGES IN PERIODS OF YEARS.—1878.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	1878.	1877.	1876.	1875.		1874.	1873.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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**CAUSES OF DEATH, SPECIFIED.**

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**CAUSES OF DEATH, SPECIFIED.**

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[illegible]

<sup>a</sup> See Exhibit 9, page 240.



**CAUSES OF DEATH, SPECIFIED.**

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[illegible]







**TABLE XVII.—CONTINUED.—Specified Causes of Death.**

[illegible]



The number of deaths tabulated as having been caused by "Casualty" in 1878 was 202, as shown by Table XVII., page 202, and by Exhibit R, page 239. The special causes tabulated as casualty are shown in Exhibit R.

EXHIBIT R.—*Deaths in Michigan in 1878, Compiled as Casualty.*

CASUALTY,—CAUSES AS RETURNED.	Num-ber.	CASUALTY,—CAUSES AS RETURNED.	Num-ber.
Total number, tabulated as Casualty in Table XVII.....	202	Accidentally fell on pen-knife blade and was stabbed to the heart.....	1
Accident in saw-mill.....	6	Killed by switch engine.....	1
Killed by Machinery.....	3	Killed on railway.....	1
Powder explosion.....	2	Thrown from wagon.....	8
Killed.....	5	Killed by a threshing machine.....	1
Killed in mine.....	6	Caught in threshing cylinder.....	1
Accidental.....	78	Dislocation of collar-bone.....	1
Injuries received while house was burning.....	1	Crushed by a wagon.....	2
Killed from lumber pile falling on him...	1	Killed by a bull.....	4
Killed in lumber woods.....	1	Stepped on by an ox.....	1
Accidental shooting....	16	Crushed in the pinery.....	1
By log falling.....	1	Dislocated spine.....	1
Killed by elevator.....	1	Killed during wind storm.....	1
Accidentally run over.....	4	Crushed leg from falling bridge.....	1
Explosion of boiler.....	2	Team running away.....	5
Falling rock.....	1	Accidentally falling on hay-knife.....	1
Killed by falling limb.....	3	Bursting of a pulley.....	1
Log rolled on him.....	4	Fell from a tree.....	1
Drunk and run over.....	2	Accidental fright of team.....	1
Bursting of shingle-jointer.....	1	Fell from load of hay.....	1
Injured by log.....	2	Killed by a saw.....	1
Fell and broke his neck.....	1	Stepped on by a horse.....	1
Being run over by a roller.....	1	Leg cut off by mowing machine.....	1
Hurt in mill.....	1	Buried in well.....	2
Injured by falling from a building.....	2	Fell from wind-mill.....	1
Struck with windlass.....	1	Fell from bridge.....	1
Kicked by a horse.....	12	Accidental caving in of a sewer.....	1
		Fell from an elevator.....	1

In Exhibit 9 the statistics of deaths from suicide in this State in 1878 are shown. There were 40 males and 23 females returned as having committed suicide in 1878, making 63 in all,—the largest number ever returned except for the year 1877. Hanging and poisoning were the reported means most generally employed.

EXHIBIT 9.—*Certain facts concerning Persons Returned as having died by Suicide in Michigan during the Year 1878.*

DATE OF DEATH.		Age.	Condi- tion.	Sex.	Color.	Occupation.	Nativity.	Means Used.
MONTH.	Day.							
January .....	4	72	M.	M	W.	Farmer .....	New York .....	Not given.
January .....	5	24	M.	M.	W.	Laborer .....	England .....	Not given.
January .....	13	37	S.	M.	W.	Laborer .....	Ireland .....	Not given.
January .....	16	65	M.	M.	W.	Dyer .....	New York .....	Not given.
January .....	17	19	S.	F.	W.	Unknown .....	Michigan .....	Poison.
February .....	23	18	S.	M.	W.	Student .....	Michigan .....	Shooting.
February .....	23	60	Unk.	M.	W.	Unknown .....	Germany .....	Hanging.
March .....	5	40	M.	M.	W.	Laborer .....	New York .....	Not given.
March .....	10	46	M.	M.	W.	Blacksmith .....	Unknown .....	Not given.
March .....	14	31	S.	M.	W.	Printer .....	Holland .....	Not given.
March .....	20	42	M.	F.	W.	House-work .....	Germany .....	Paris Green.
March .....	24	47	M.	M.	W.	Druggist .....	New York .....	Poison.
April .....	1	23	M.	F.	W.	House-keeper .....	Unknown .....	Poison.
April .....	7	40	M.	M.	W.	Laborer .....	Ireland .....	Not given.
April .....	17	33	S.	M.	W.	Hotel-keeper .....	Michigan .....	Morphine.
April .....	18	26	S.	F.	W.	Hotel-girl .....	Michigan .....	Poison.
April .....	25	18	S.	F.	W.	House-work .....	Michigan .....	Not given.
May .....	1	41	M.	F.	W.	House-keeper .....	New York .....	Drowning.
May .....	3	38	M.	F.	W.	Farmer .....	Germany .....	Not given.
May .....	6	23	S.	M.	W.	Not given .....	Unknown .....	Not given.
May .....	7	55	Unk.	M.	W.	Unknown .....	Germany .....	Hanging.
May .....	14	87	W.	M.	W.	Farmer .....	England .....	Pistol Shot.
June .....	2	Unk.	S.	M.	W.	Unknown .....	Germany .....	Not given.
June .....	4	45	M.	M.	W.	Farmer .....	Scotland .....	Not given.
June .....	15	56	M.	F.	W.	House-wife .....	New York .....	Poison.
June .....	15	57	M.	F.	W.	House-wife .....	Germany .....	Not given.
June .....	16	51	M.	F.	W.	House-wife .....	New York .....	Hanging.
June .....	21	22	M.	M.	W.	Farmer .....	Michigan .....	Drowning.
June .....	23	21	S.	M.	W.	Brew .....	Michigan .....	Hanging.
June .....	26	44	M.	M.	W.	Sh .....		
June .....	27	49	M.	M.	W.			
July .....	9	14	M.	F.	W.			

EXHIBIT 9.—CONTINUED.—*Suicidal Deaths, 1878.*

DATE OF DEATH.		Age.	Condi- tion.	Sex.	Color.	Occupation.	Nativity.	Means Used.
MONTH.	Day.							
July.....	14	22	M.	M.	W.	Unknown.....	Michigan.....	Shooting.
July.....	21	70	M.	M.	W.	Retired Farmer	New Hampshire	Poison.
July.....	28	50	M.	M.	W.	Laborer.....	Scotland.....	Not given.
July.....	30	34	M.	F.	W.	House-wife....	England.....	Not given.
August.....	4	22	M.	F.	M.	House-wife....	Ohio.....	Hanging.
August.....	12	65	W.	F.	W.	Not given.....	Holland.....	Not given.
August.....	14	30	M.	F.	W.	House-keeper...	Michigan.....	Poison.
August.....	15	51	M.	M.	W.	Gardener.....	Germany.....	Shooting.
August.....	17	28	S.	M.	W.	Laborer.....	Germany.....	Not given.
August.....	30	42	M.	M.	W.	Capt. of Tug....	Pennsylvania..	Shooting.
August.....	31	43	M.	F.	W.	House-wife....	Germany.....	Hanging.
September....	1	84	W.	M.	W.	Farmer.....	Vermont.....	Hanging.
September....	5	50	M.	M.	W.	Farmer.....	Scotland.....	Not given.
September....	16	16	S.	F.	W.	Laborer.....	Michigan.....	Strychnine.
September....	24	38	M.	F.	W.	House-wife....	Michigan.....	Not given.
September....	26	38	M.	M.	W.	Farmer.....	Ohio.....	Shooting.
October.....	8	40	M.	M.	W.	Saloon-keeper..	Germany.....	Pistol Shot.
October.....	10	23	S.	M.	W.	Unknown.....	New York.....	Shooting.
October.....	14	22	S.	M.	W.	Farmer.....	Michigan.....	Not given.
October.....	15	47	M.	M.	W.	Farmer.....	Michigan.....	Drowning.
October.....	17	32	M.	M.	W.	Brick-maker....	Unknown.....	Shooting.
October.....	18	76	W.	M.	W.	Gardener.....	Prussia.....	Hanging.
November....	11	24	S.	F.	W.	Domestic.....	Michigan.....	Not given.
November....	11	33	M.	F.	W.	House-wife....	Ohio.....	Opening vein in arm.
November....	17	32	M.	M.	W.	Carpenter.....	Germany.....	Not given.
November....	22	48	M.	M.	W.	Merchant.....	New York.....	Hanging.
November....	30	52	M.	M.	W.	Laborer.....	Germany.....	Not given.
December....	6	60	M.	M.	W.	Physician.....	Prussia.....	Laudanum.
December....	11	26	M.	F.	W.	House-keeper...	Michigan.....	Not given.
December....	16	19	S.	F.	W.	Courtesan.....	Unknown.....	Not given.
December....	23	58	M.	F.	W.	Farmer.....	Ohio.....	Hanging.



EXHIBIT 9.—CONTINUED.—*Suicidal Deaths, 1878.*

OCCUPATIONS.	No.	OCCUPATIONS.	No.	OCCUPATIONS.	No.
Black-smith .....	1	Farmer, Retired .....	1	Physician.....	1
Brewer.....	1	Gardeners.....	2	Printer.....	1
Brick-maker.....	1	Grain Dealer.....	1	Saloon-keeper.....	1
Captain of Tug.....	1	Hotel Girl.....	1	Shoe-maker.....	1
Carpenter.....	1	Hotel-keeper.....	1	Student.....	1
Courtesan.....	1	House-keepers.....	4	Unknown.....	8
Domestic.....	1	House-wives.....	9		
Druggist.....	1	House-workers.....	2	Total.....	63
Dyer.....	1	Laborers.....	8		
Farmers.....	11	Merchant.....	1		

NATIVITY.	No.	NATIVITY.	No.	NATIVITY.	No.
England.....	3	New Hampshire.....	1	Scotland.....	3
Germany.....	12	New York.....	10	Unknown.....	5
Holland.....	2	Ohio.....	5	Vermont.....	1
Ireland.....	2	Pennsylvania.....	2		
Michigan.....	15	Prussia.....	2	Total.....	63

MEANS USED.	NUMBER.		MEANS USED.	NUMBER.		MEANS USED.	NUMBER.	
	Males.	Fe- males.		Males.	Fe- males.		Males.	Fe- males.
Drowning.....	2	1	Morphine.....	1	-----	Poison.....	2	7
Hanging.....	6	4	Not given.....	19	10	Shooting.....	9	-----
Laudanum.....	1	-----	Opening Vein in Arm	-----	1	Total.....	40	23

EXHIBIT Z.—*Deaths in Michigan in 1878, Compiled as Unknown.*

CAUSES AS RETURNED.	Males.	Fe- males.	Un- known.	CAUSES AS RETURNED.	Males.	Fe- males.	Un- known.
Total number compiled Un- known in Table XVII.....	708	595	3	Exhaustion.....	3	2	-----
				Chronic, etc.....	-----	1	-----
Congestion.....	3	1	1	Exhaustion and want of care	1	-----	-----
Natural causes.....	1	-----	-----	Operation.....	-----	1	-----
Female Disease.....	-----	1	-----	Chronic Disease.....	-----	1	-----
Anaesthetics.....	-----	1	-----	Mercerous.....	1	-----	-----
Chronical.....	-----	1	-----				
Private Disease.....	-----	1	-----				
Female Complaint.....	-----	-----	-----				
Rush of Blood to Head.....	1	-----	-----				
Suspension.....	1	-----	-----				

# FIFTEEN PRINCIPAL CAUSES OF DEATH.

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The fifteen principal conditions and causes of death in Michigan in 1878 caused 56.93 per cent. of all the deaths reported, as shown by Table XVIII. Consumption heads the list of principal causes, and the decedents from this disease constituted 12.85 per cent. of the deaths from all causes in 1878. Next to consumption comes diphtheria, which is reported to have caused 887 deaths in this State in 1878, which is 6.95 per cent. of the deaths from all causes. This is the first time that diphtaeria has ranked so high in the list of principal causes. The number of deaths represented in this Table composes 56.93 per cent. of all the deaths returned for the year 1878.

TABLE XVIII.—*Order of Succession of Fifteen Principal Conditions and Causes of Death in Michigan in 1878, according to the Returns, Exhibiting for each Specified Condition and Cause, by Sex, the Number of Deaths, and the Per Cent. of Deaths from each Cause to Deaths from All Causes.*

ORDER.	SPECIFIED CAUSES AND CONDITIONS, 1878.	NUMBER OF DEATHS.			PER CENT. FROM EACH CAUSE TO DEATHS FROM ALL CAUSES.		
		Total.	Males.	Females.	Total.	Males.	Females.
1	Consumption .....	1,641	729	912	12.85	10.99	15.00
2	Diphtheria.....	887	396	491	6.95	5.97	8.07
3	Still-born.....	a 793	444	307	6.21	6.69	5.05
4	Old Age.....	579	281	298	4.54	4.24	4.90
5	Pneumonia.....	462	275	187	3.62	4.15	3.07
6	Scarlet Fever.....	429	217	212	3.36	3.27	3.49
7	Heart Disease.....	332	187	145	2.60	2.92	2.38
8	Typhoid Fever.....	329	176	153	2.58	2.65	2.52
9	Apoplexy and Paralysis.....	328	168	160	2.57	2.53	2.63
10	Convulsions and Fits.....	288	157	131	2.26	2.27	2.15
11	Cancer.....	269	116	153	2.11	1.75	2.52
12	Dropsy.....	219	114	135	1.95	1.72	2.22
13	Cholera Infantum.....	b 243	125	116	1.90	1.88	1.91
14	Brain, Inflammation of.....	225	107	119	1.76	1.61	1.94
15	Bowels, Inflammation of.....	214	109	105	1.63	1.64	1.73
Total .....		c 7,288	3,601	3,623	56.93	54.30	59.57
All Causes.....		d 12,766	6,632	6,082	100.00	100.00	100.00

a Includes 42 unknown sex.  
c Includes 44 unknown sex.

b Includes 2 unknown sex.  
d Includes 52 unknown sex.

EXHIBIT T.—Order of Succession of Fifteen Principal Causes of Death in Michigan for each of the Years 1873-78.

Order.	1873.		1874.		1875.		1876.		1877.		1878.	
	1873.		1874.		1875.		1876.		1877.		1878.	
1	Consumption.....	1,447	Consumption.....	1,392	Consumption.....	1,479	Consumption.....	1,390	Consumption.....	1,654	Consumption.....	1,611
2	Pneumonia.....	708	Pneumonia.....	800	Pneumonia.....	745	Still-born.....	646	Still-born.....	720	Diphtheria.....	887
3	Typhoid Fever....	677	Typhoid Fever....	610	Still-born.....	629	Pneumonia.....	627	Diphtheria.....	593	Still-born.....	793
4	Scarlet Fever.....	573	Still-born.....	464	Typhoid Fever....	433	Old Age.....	483	Old Age.....	489	Old Age.....	579
5	Old Age.....	428	Scarlet Fever....	440	Scarlet Fever....	423	Typhoid Fever....	426	Pneumonia.....	465	Pneumonia.....	402
6	Spinal Fever.....	428	Old Age.....	428	Old Age.....	373	Scarlet Fever....	339	Typhoid Fever....	446	Scarlet Fever....	439
7	Diarrhea.....	256	Diarrhea.....	333	Cholera Infantum..	289	Apoplexy and Paral..	337	Scarlet Fever....	401	Heart Disease....	333
8	Brain, Infl. of....	315	Heart Disease....	330	Heart Disease....	289	Cholera Infantum..	331	Cholera Infantum..	370	Typhoid Fever....	322
9	Heart Disease....	315	Dysentery.....	302	Diarrhea.....	293	Heart Disease....	320	Heart Disease....	367	Apoplexy and Paral..	338
10	Dysentery.....	313	Cholera Infantum..	278	Apoplexy and Paral..	299	Diphtheria.....	311	Apoplexy and Paral..	329	Convulsions and Fits	288
11	Cholera Infantum..	306	Brain, Infl. of....	261	Convulsions and Fits	238	Diarrhea.....	304	Convulsions and Fits	298	Cancer.....	269
12	Convulsions and Fits	306	Convulsions and Fits	238	Brain, Infl. of....	232	Brain, Infl. of....	275	Brain, Infl. of....	291	Dropsy.....	249
13	Bowels, Infl. of....	285	Apoplexy and Paral..	235	Bowels, Infl. of....	218	Convulsions and Fits	275	Cancer.....	265	Cholera Infantum..	243
14	Childbirth.....	251	Dropsy.....	226	Casualty.....	215	Cancer.....	241	Diarrhea.....	265	Brain, Infl. of....	225
15	Apoplexy and Paral..	231	Diphtheria.....	213	Dropsy.....	215	Bowels, Infl. of....	239	Bowels, Infl. of....	238	Bowels, Infl. of....	214



TABLE XIX.—Deaths, in Michigan, from Ten Specified Causes during the Year 1878, Exhibiting the Number of each Sex, Total Number in each Month, and at different Periods of Age, according to the Returns.

SEX, MONTHS, AND AGES.		CAUSES OF DEATH,—1878.									
		Cancer.	Cepha- litis.	Croup. <sup>a</sup>	Diar- rhea. <sup>b</sup>	Diph- theria.	Dysen- tery. <sup>c</sup>	Measles.	Scarlet Fever.	Typhoid Fever.	Whoop- ing Cough.
SEX.	Total.....	269	225	236	173	887	158	16	429	329	132
	Males.....	116	107	134	91	396	85	8	217	176	64
	Females.....	153	118	103	82	491	73	8	212	153	68
MONTHS.	January.....	17	6	23	4	56	-----	1	32	11	11
	February.....	21	22	13	3	03	2	1	34	13	9
	March.....	16	15	11	5	51	2	3	41	16	8
	April.....	23	19	15	4	40	-----	4	35	14	9
	May.....	33	10	11	5	43	4	1	31	21	7
	June.....	17	22	8	10	34	6	-----	23	19	13
	July.....	26	19	11	39	36	20	-----	22	21	10
	August.....	26	23	8	47	58	60	1	31	42	24
	September....	22	27	21	30	113	39	1	27	54	16
	October.....	25	18	27	12	131	13	2	26	52	5
	November....	17	20	43	7	134	8	-----	52	41	9
	December....	26	19	45	7	127	4	2	75	31	11
AGES.	Unknown.....	-----	-----	-----	-----	2	-----	-----	-----	-----	-----
	Av. Month.... <sup>d</sup>	23	19	20	14	74	13	1	36	27	11
	Under 5.....	7	145	195	152	366	127	11	276	37	123
	5 to 10.....	-----	15	30	4	309	4	2	104	38	3
	10 to 15.....	-----	10	7	-----	131	-----	-----	26	32	1
	15 to 20.....	1	14	-----	2	41	-----	1	12	42	1
	20 to 25.....	2	12	-----	-----	10	-----	1	2	21	-----
	25 to 30.....	6	3	-----	1	5	2	-----	3	20	-----
	30 to 35.....	9	3	-----	-----	4	1	-----	1	17	-----
	35 to 40.....	14	3	-----	1	1	1	1	-----	17	-----
	40 to 45.....	18	3	-----	-----	1	2	-----	1	17	-----
	45 to 50.....	30	-----	-----	3	3	2	-----	-----	13	-----
50 to 55.....	27	1	1	1	3	4	-----	-----	16	-----	
55 to 60.....	40	5	-----	1	3	1	-----	1	12	-----	
60 to 65.....	31	3	1	2	1	-----	-----	-----	9	-----	
65 to 70.....	36	2	-----	-----	-----	3	-----	-----	17	1	
70 to 75.....	16	-----	-----	1	1	3	-----	-----	6	-----	
75 to 80.....	11	1	-----	5	1	2	-----	-----	7	-----	
80 and over....	13	1	-----	-----	1	5	-----	-----	2	-----	
Unknown.....	8	4	2	-----	6	1	-----	3	6	3	

<sup>a</sup> Includes 37 Membranous Croup.  
log unknown month.

<sup>b</sup> Includes 12 Chronic.

<sup>c</sup> Includes 1 Chronic.

<sup>d</sup> Exclud-

TABLE XX.—*Per Cent. of Deaths during the Year ending December 31, 1878, from each of Ten Specified Causes, to Deaths from All Causes; and Per Cent. of each Sex, of Deaths in each Month, and at different Periods of Life to Total Deaths from each Specified Cause.*

SEX, MONTHS, AND AGES.		CAUSES OF DEATH,—1878. PER CENT. OF TOTAL.									
		Cancer.	Cepha- litis.	Croup.	Diar- rhea.	Diph- theria.	Dysen- tery.	Measles.	Scarlet Fever.	Typhoid Fever.	Whoop- ing Cough.
Per Ct. of All Cause <sup>a</sup>		2.11	1.76	1.85	1.36	6.96	1.24	.13	3.36	2.68	1.83
SEX.	Males .....	43.12	47.56	56.78	52.60	41.64	53.90	50.00	50.58	53.50	49.46
	Females .....	56.88	52.44	43.22	47.40	55.36	46.20	50.00	49.42	46.50	51.52
MONTHS.	January .....	6.32	2.67	9.75	2.31	6.31	-----	6.25	7.46	3.34	8.33
	February .....	7.81	9.78	5.51	1.73	7.10	1.27	6.25	7.93	3.96	6.92
	March .....	5.95	6.67	4.66	2.89	5.75	1.27	18.75	9.56	4.86	6.06
	April .....	8.55	8.44	6.36	2.31	4.51	-----	25.00	8.16	4.26	6.92
	May .....	12.27	4.44	4.66	2.89	4.74	2.53	6.25	7.23	6.38	5.30
	June .....	6.32	9.78	3.39	5.78	3.83	3.80	-----	5.36	3.96	.35
	July .....	9.66	8.44	4.66	22.54	4.06	12.66	-----	5.13	6.38	7.56
	August .....	9.66	12.44	3.39	27.17	6.54	37.97	6.25	7.23	12.77	18.16
	September .....	8.18	12.00	8.90	17.34	12.74	24.68	4.25	6.29	16.41	12.13
	October .....	9.29	8.00	11.44	6.94	14.77	8.23	12.50	6.06	15.81	3.79
	November .....	6.32	8.89	18.22	4.05	15.11	5.06	-----	12.13	12.46	6.92
	December .....	9.67	8.44	19.07	4.05	14.32	2.53	12.50	17.48	9.42	8.33
Unknown .....		-----	-----	-----	-----	.32	-----	-----	-----	-----	-----
Av. Month .....		8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33
AGES.	Under 5 .....	2.60	64.44	82.63	87.96	41.26	80.33	63.75	64.34	11.24	98.16
	5 to 10 .....	-----	6.67	12.71	2.31	34.84	2.53	12.50	24.21	11.55	2.27
	10 to 15 .....	-----	4.44	2.97	-----	14.77	-----	-----	6.07	9.73	.76
	15 to 20 .....	.37	6.22	-----	1.16	4.62	-----	6.25	2.80	12.77	.76
	20 to 25 .....	.74	5.33	-----	-----	1.13	-----	6.25	.46	6.33	-----
	25 to 30 .....	2.23	1.33	-----	.58	.56	1.27	-----	.70	6.06	-----
	30 to 35 .....	3.35	1.33	-----	-----	.45	.63	-----	.23	5.17	-----
	35 to 40 .....	5.20	1.33	-----	.58	.11	.63	6.25	-----	5.17	-----
	40 to 45 .....	6.69	1.33	-----	-----	.11	1.27	-----	.23	5.17	-----
	45 to 50 .....	11.15	-----	-----	1.73	.34	1.27	-----	-----	3.96	-----
	50 to 55 .....	10.04	.44	.42	.58	.34	2.53	-----	-----	4.86	-----
	55 to 60 .....	14.87	2.22	-----	.58	.34	.63	-----	.23	3.65	-----
	60 to 65 .....	11.52	1.33	.42	1.16	.11	-----	-----	-----	2.73	-----
	65 to 70 .....	13.38	.89	-----	-----	-----	1.90	-----	-----	5.17	.76
	70 to 75 .....	5.95	-----	-----	.58	.11	1.90	-----	-----	1.82	-----
	75 to 80 .....	4.09	.45	-----	2.89	.11	1.27	-----	-----	2.12	-----
	80 and over .....	4.83	.45	-----	-----	.11	3.16	-----	-----	.61	-----
Unknown .....		2.97	1.78	.85	-----	.68	.63	-----	.70	1.93	2.27

<sup>a</sup> Excluding deaths in unknown month.

*Cancer.*—Two hundred and sixty-nine deaths from this disease were returned for the year 1878, which is 2.11 per cent. of the deaths from all causes. This is the largest number of deaths from cancer ever returned to the State Department for any one year; the number returned has constantly increased each year since 1872. In 1878, the largest proportion appears for the month of May, and, of the different periods of age, the largest proportion appears for decedents aged 55 to 60 years. It appears, by Table XX., that only 3.71 per cent. of all the decedents from cancer in this State, in 1878, were under 25 years of age. Of the 269 deaths from this disease the part of body affected by the cancer was stated in only 129 cases (47.96 per cent.), as shown by Exhibit S. The stomach was the organ most frequently affected by cancer in 1878; next in order, the breast, and next the womb.

EXHIBIT S.—*Deaths of Persons Returned as having Died from Cancer in Michigan during the Year 1878, indicating part of body affected.*

AS RETURNED.	Total.	Males.	Fe- males.	AS RETURNED.	Total.	Males.	Fe- males.
Carcinoma Uteri.....	1		1	Bone Cancer of Thigh.....	1	1	
Cancer in Stomach.....	53	32	21	Cancer of Neck.....	4	3	1
Cancer in Throat.....	4	1	3	Rose Cancer.....	2	2	
Cancer of Bowels.....	5	1	4	Scrofulous Cancer.....	1	1	
Cancer of Breast.....	19	1	18	Cancer of Hand.....	1	1	
Cancer of Liver.....	1	1		Scirrhus.....	1		1
Cancer Tumor.....	1		1	Cancer of Lip.....	1	1	
Schirrus Cancer in Stomach.....	1	1		Cancer of Rectum.....	2	2	
Inward Cancer.....	3	1	2	Cancer of Spleen.....	1		1
Cancer of Womb.....	14		14	Frog Cancer on Leg.....	1	1	
Cancer in Mouth.....	1	1		Cancer on Leg.....	1	1	
Cancer on Face.....	7	6	1				
Cancer of Kidneys.....	1	1		Total Specified.....	129	61	68
Cancer on Head.....	1	1		Cancer (Unspecified).....	140	55	85
Cancer in Lungs.....	1	1		Aggregate.....	269	116	153

*Measles.*—Only 16 deaths from measles were reported for the year 1878,—a very small number in comparison with any previous year. During the four months of March, April, October, and December 68.75 per cent. of all the deaths from measles in 1878 occurred, and 68.75 per cent. of all the decedents were under 5 years of age.

*Whooping-Cough.*—In the returns of deaths for the year 1878 there were 132 deaths returned as having occurred from whooping-cough. A larger per cent. of these occurred in August than in any other month, and 93.18 per cent. of all the decedents from this disease were under 5 years of age.

#### METEOROLOGICAL CONDITIONS, AND THEIR RELATIONS TO DEATHS.

The meteorological conditions to which study is given in this work are those observed at the State Agricultural College, near Lansing. As this station is near the center of the thickly-settled portion of the State, it is thought to represent, more nearly than other stations, the conditions which prevailed where the greatest proportion of the deaths in Michigan occurred.

In the following tables and exhibits some of the most important diseases are compared with the principal meteorological conditions, so that any coincidence of the deaths from those diseases with any of the stated conditions can be learned.



EXHIBIT 10.—TEMPERATURE.—Average by Years and by Months, for the Years 1869 to 1878, inclusive, at the Agricultural College, near Lansing, Michigan, and near the center of the thickly-settled part of the State. (Results of Observations by Prof. R. C. Kedzie.)

YEARS.	ANNUAL AVERAGE.	AVERAGE TEMPERATURE, STATED IN DEGREES FAHRENHEIT, BY MONTHS.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1869.....	46.27	29.38	26.66	27.60	45.70	56.02	64.45	70.35	70.58	63.45	40.80	32.05	23.16
1870.....	49.11	25.37	24.25	30.28	50.39	64.32	70.87	74.40	70.11	63.66	52.45	38.40	24.60
1871.....	47.93	24.75	25.65	38.18	50.13	61.39	68.21	70.60	71.19	68.10	53.91	31.95	21.12
1872.....	45.54	21.59	21.34	24.75	47.39	58.48	71.82	74.91	71.22	62.03	47.44	29.60	15.74
1873.....	44.54	15.87	19.10	28.30	43.17	56.98	70.60	70.82	69.49	57.38	44.68	23.49	22.54
1874.....	47.32	27.70	25.51	32.30	36.87	59.58	70.61	72.02	69.39	62.85	49.10	35.00	26.96
1875.....	43.09	12.87	8.85	26.20	41.11	60.82	66.87	69.67	65.48	56.50	42.93	32.96	31.58
1876.....	46.17	30.22	27.38	30.55	44.16	57.95	68.14	72.48	71.55	56.30	43.74	36.33	15.23
1877.....	47.42	18.07	32.31	24.51	46.16	58.25	65.93	71.43	68.46	61.28	50.83	35.54	26.57
1878.....	48.29	29.11	28.07	40.90	50.55	54.57	64.03	73.04	70.15	63.15	42.23	36.29	21.29
Av. for 10 Years*	46.57	23.49	23.86	30.86	45.56	58.84	68.13	71.97	69.76	60.67	47.42	33.65	25.10

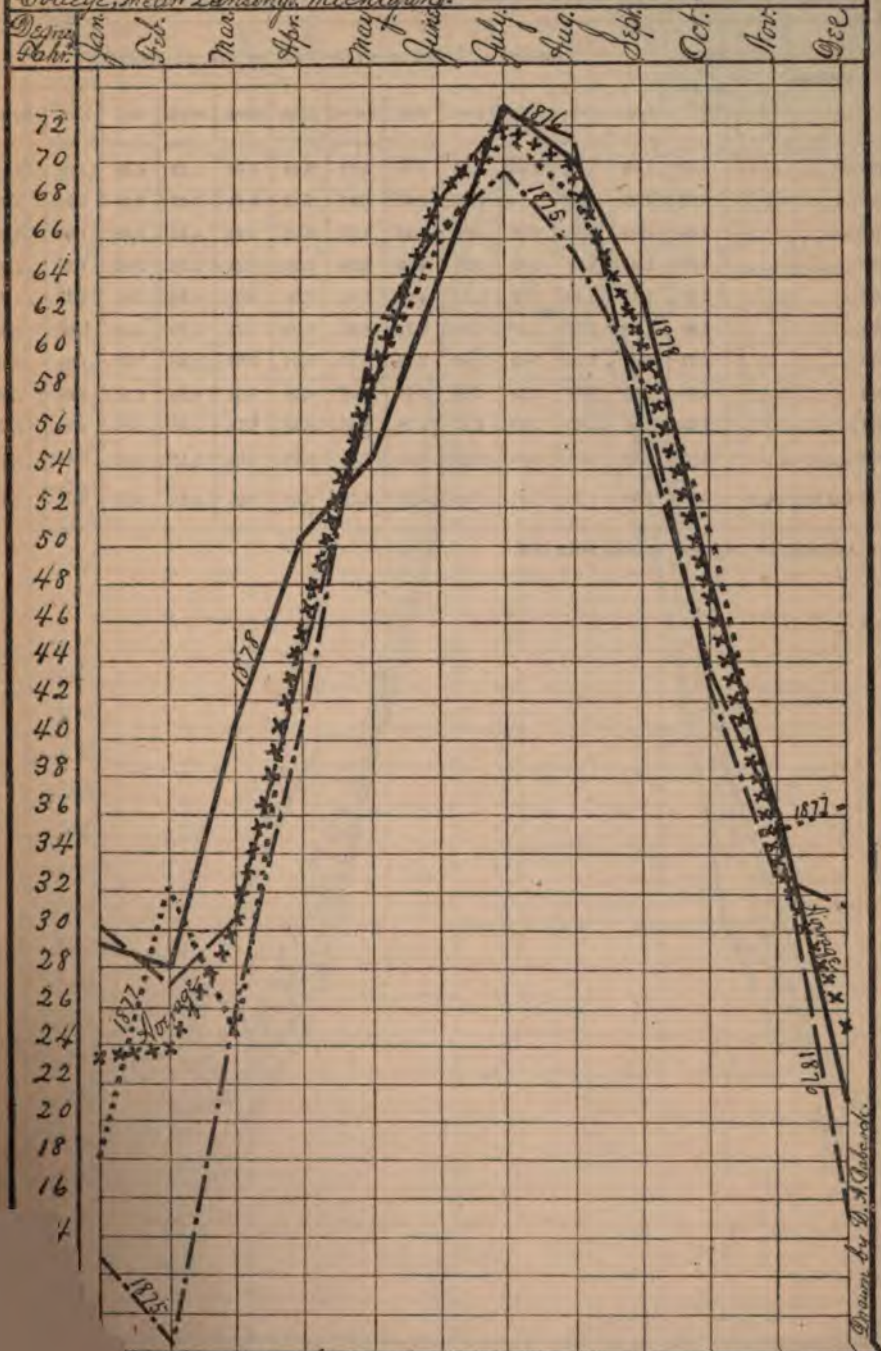
\* Average for 10 years ending with 1878.

TABLE XXXI.—TEMPERATURE.—Exhibiting the Mean Temperature, the Highest and Lowest Temperature, the Monthly Range, the Mean Daily Range, the Mean Range from Day to Day, and the Greatest Rise or Fall of Thermometer in 24 hours and in 14 hours, for each Month of the Year 1878, at the Agricultural College, near Lansing, Michigan.

YEAR AND MONTHS, 1878.	TEMPERATURE.—FAHRENHEIT, 1878.											
	Average of 3 Daily Observations,—7 A. M., 2 P. M., and 9 P. M.	REGISTERING THERMOMETER.			AVERAGE RANGE.		GREATEST CHANGE IN 24 HOURS,—2 P. M. TO 2 P. M.		GREATEST CHANGE IN 14 HOURS,—7 A. M. TO 9 P. M.		REGISTERING THERMOMETER.—GREATEST CHANGE IN 24 HOURS.	
		Highest.	Lowest.	Range.	Daily,—7 A. M. to 9 P. M.	From Day to Day,—2 P. M. to 2 P. M.	Degrees of Rise and Fall.	Day of Month.	Degrees of Rise and Fall.	Day of Month.	Degrees of Change.	Day of Month.
Year 1878..	48.29	98	-7	105	13.63	16.05	F. 40	Mar. 24	R. 33	3, 4	40	Mar. 23
January ..	29.11	48	-4	52	9.00	11.03	F. 23	23	R. 21	29	23	22
February ..	28.07	55	-7	62	14.59	15.93	F. 34	3	R. 33	3, 4	37	2
March.....	40.90	72	18	54	12.06	16.77	F. 40	24	R. 23	5, 15	40	23
April.....	50.55	75	29	46	14.07	15.77	R. 26	2	R. 26	2	31	4, 12
May.....	54.57	77	29	48	13.08	15.45	R. 25	2	R. 23	31	28	2
June.....	64.08	94	39	55	15.80	18.73	R. 27	25	R. 27	25	33	24
July.....	73.04	98	47	51	14.32	13.10	F. 30	2	R. 26	23	34	1
August....	70.15	93	39	54	17.71	19.74	R. 29	26	R. 29	26	38	26
September	63.15	92	31	61	17.43	20.30	R. 29	6	R. 29	6	32	14
October...	48.33	82	21	61	16.03	18.68	R. 32	20	R. 31	6, 12	32	6
November	36.29	52	15	37	11.57	12.60	F. 30	3	R. 25	3	36	2
December.	21.29	36	-2	38	7.90	9.55	F. 18	15	R. 17	8	21	7, 22

# Diagram No. 6.

Average Temperature, by months, for the years 1875, 1876, 1877, and 1878, and the Average for 10 years ending with 1878, at the Agricultural College, near Lansing, Michigan.



10 Degrees to the inch.

Designed by Henry B. Baker.

Drawn by W. A. Baker.

**EXHIBIT 11.—ABSOLUTE HUMIDITY.**—*Grains of Vapor in a Cubic Foot of Air, by Months, for the Years 1869 to 1878, inclusive, at the Agricultural College, near Lansing, Michigan.*

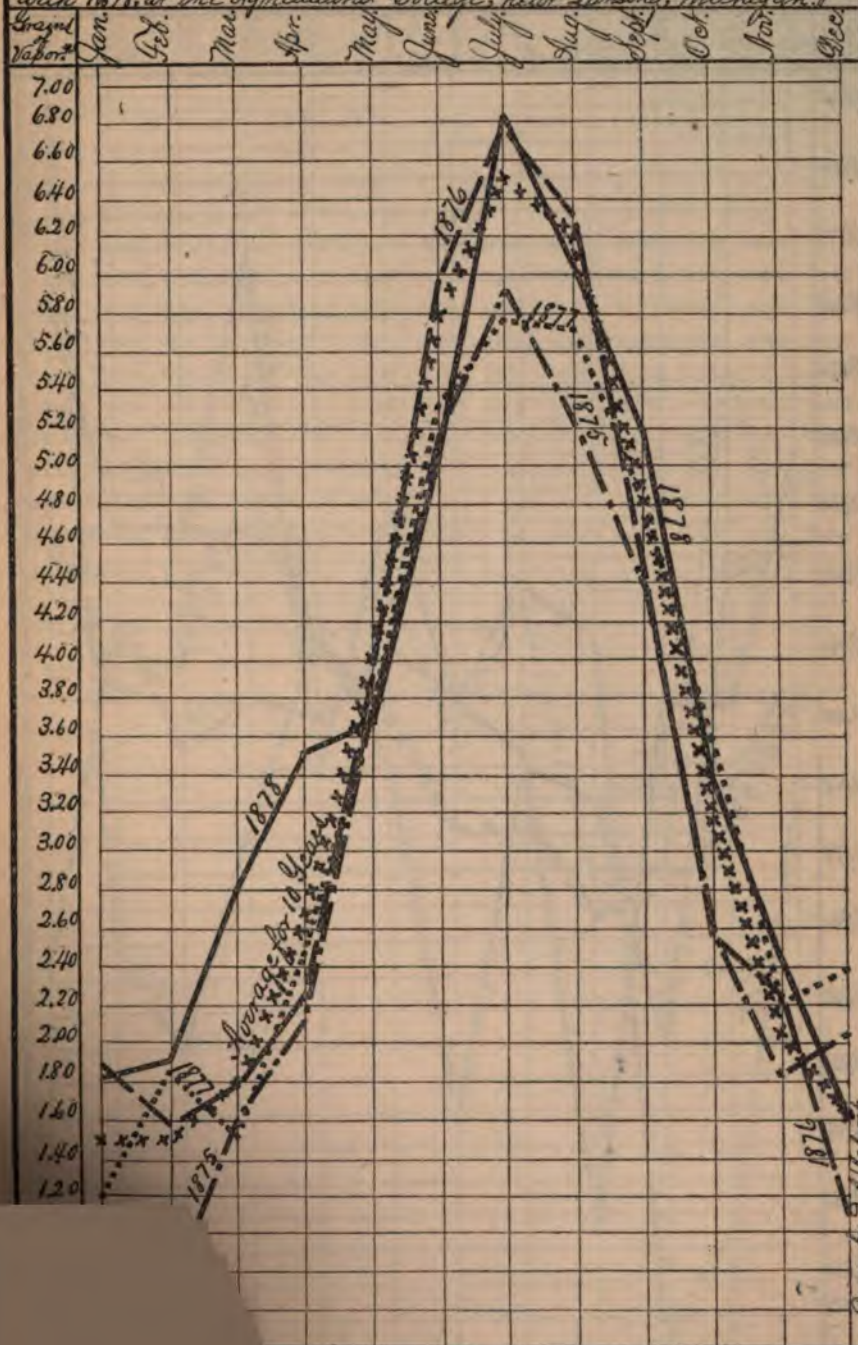
YEARS.	ANNU- AL AVER- AGE.	GRAINS OF VAPOR IN CUBIC FOOT OF AIR, BY MONTHS.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1869.....	3.42	1.93	1.78	1.49	2.56	3.65	5.52	6.49	6.56	5.13	2.56	1.69	1.53
1870.....	3.90	1.50	1.35	1.76	3.06	4.92	6.45	7.19	6.54	5.45	3.95	2.22	1.70
1871.....	3.56	1.63	1.59	2.28	3.00	4.63	5.77	6.35	6.43	4.41	3.48	1.89	1.32
1872.....	3.70	1.31	1.23	1.32	2.99	4.29	6.78	7.33	7.15	5.57	3.40	1.89	1.12
1873.....	3.36	1.14	1.43	1.62	2.71	4.00	5.85	6.45	6.29	4.50	2.92	1.73	1.02
1874.....	3.36	1.68	1.55	2.00	2.08	3.77	6.07	6.00	5.75	4.72	3.15	2.06	1.35
1875.....	3.11	0.92	0.73	1.63	2.12	3.74	5.17	5.91	5.22	4.33	2.57	1.84	2.05
1876.....	3.40	1.88	1.57	1.78	2.26	3.93	5.95	6.76	6.31	4.43	2.66	2.26	1.09
1877.....	3.45	1.19	1.85	1.53	2.47	3.79	5.32	5.76	5.74	4.82	3.39	2.22	2.39
1878.....	3.69	1.82	1.91	2.80	3.51	3.68	5.05	6.83	6.06	5.18	3.33	2.44	1.62
Av. for 10 y'rs.*	3.50	1.50	1.50	1.81	2.68	4.03	5.79	6.51	6.21	4.86	3.16	2.04	1.62

\* Average for 10 years ending with 1878.



# Diagram No. 7.

Humidity of Atmosphere (Grains of Vapor in Cubic Foot of Air), by month, for the Years 1875, 1876, 1877, and 1878, and the Average for 10 years ending with 1878, at the Agricultural College, near Lansing, Michigan.



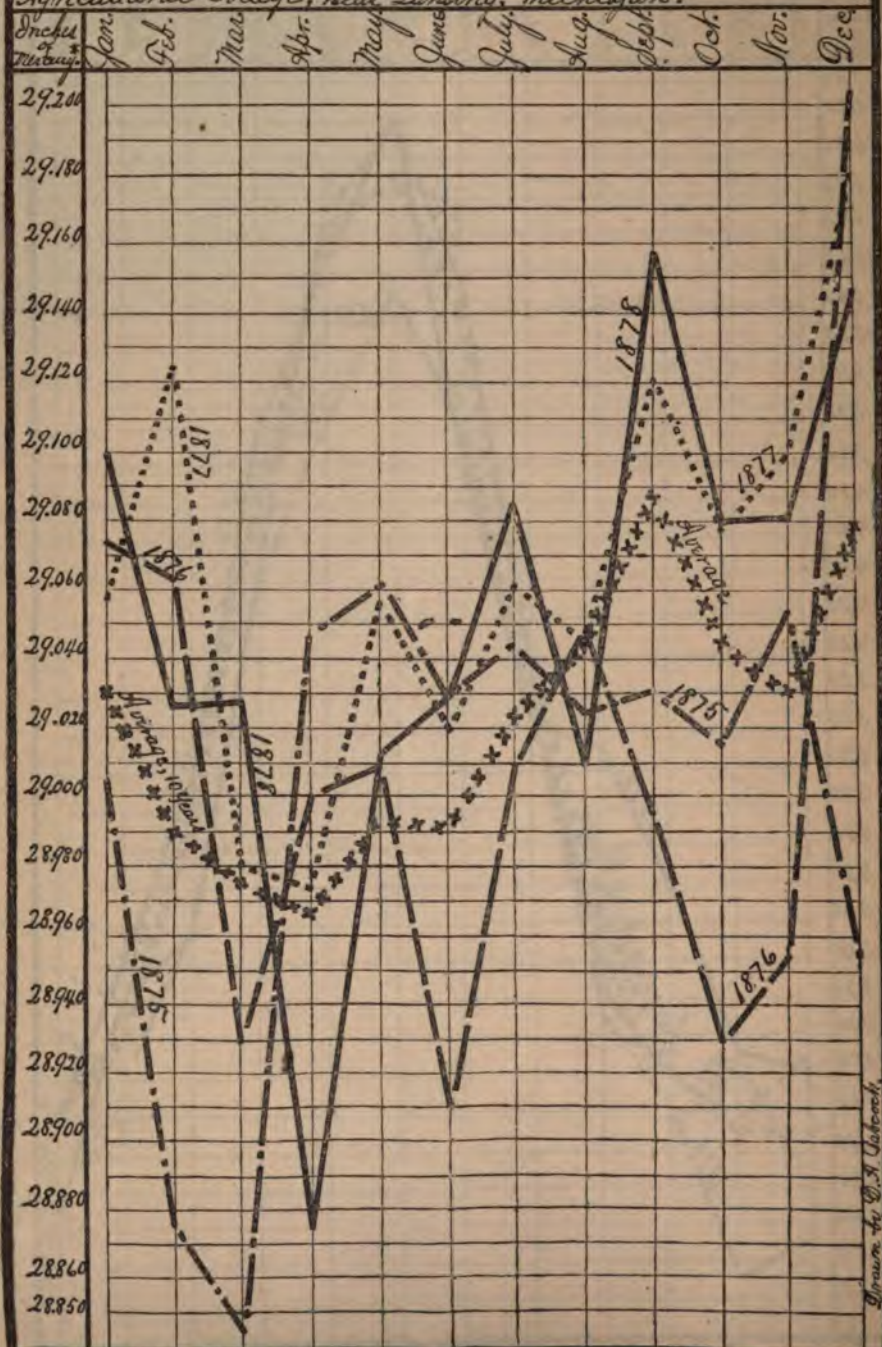
inch.

Designed by Emily B. Baker.

Drawn by J. H. G. G. G.

# Diagram No. 8.

Atmospheric Pressure, by months, for the Years 1875, 1876, 1877, and 1878, and the Average for 10 Years ending with 1878, at the Agricultural College, near Lansing, Michigan.



\* Scale = .005 to the inch.

Designed by Henry S. Baker.

Diagram No. 8. H. S. Baker.

EXHIBIT 12.—PRESSURE OF THE ATMOSPHERE.—*Observations of Barometer reduced to freezing point, and corrected for instrumental error (+.12) previous to 1875, for each of the years 1869 to 1878, inclusive, and the Average for 10 years ending with 1878, at the Agricultural College, near Lansing, Michigan. (Based upon Observations made by Prof. R. C. Kedzie.)*

YEARS.	ANNUAL AVERAGE.	PRESSURE OF THE ATMOSPHERE, STATED IN INCHES OF MERCURIAL COLUMN, BY MONTHS.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1869..	29.007	28.950	28.959	29.054	28.947	28.869	28.976	28.961	29.088	29.140	29.040	28.983	29.119
1870..	28.996	28.987	28.927	28.965	29.022	28.977	29.000	28.956	29.010	29.142	29.059	29.023	28.892
1871..	28.958	29.023	28.936	28.930	28.842	29.024	28.985	29.011	29.027	29.158	29.029	29.084	29.000
1872..	29.007	28.959	28.962	29.081	28.972	28.988	28.929	29.044	29.067	29.010	29.069	29.001	29.112
1873..	28.994	28.983	28.967	28.972	28.918	28.946	28.960	29.034	29.047	29.048	29.037	28.953	29.049
1874..	29.055	29.168	29.048	29.015	29.061	28.984	28.998	29.027	29.044	29.066	29.073	29.057	29.121
1875..	28.998	29.005	28.875	28.844	29.047	29.061	29.029	29.044	29.025	29.031	29.016	29.054	28.965
1876..	29.010	29.073	29.063	28.929	29.000	29.009	28.911	29.009	29.045	28.995	28.829	28.953	29.203
1877..	29.066	29.057	29.124	28.981	28.974	29.056	29.020	29.062	29.046	29.121	29.077	29.069	29.180
1878..	29.033	29.069	29.026	29.027	28.875	29.018	29.030	29.095	29.010	29.157	29.060	29.061	29.147
Av..*	29.017	29.031	28.989	28.975	28.966	28.993	28.991	29.024	29.043	29.087	29.044	29.029	29.078

\* Average for 10 years ending with 1878.

32—1878.



TABLE XXX.—*Exhibiting, for the Year, for each Month, and an Average Month, during the Year 1878, the Average Height and Range of Barometer, the Direction of the Prevailing Winds, the Relative Humidity, the Per Cent. of Cloudiness; the Number of Days on which it Rained or Snowed, and the Depth of Rain and Melled Snow, in Inches, at the Agricultural College near Lansing, Michigan.*

YEAR AND MONTHS, 1878.	Barometer, Reduced to 32° Fahrenheit,—Average.	Range of Barometer.	DAYS OF PREVAILING WINDS, 1878.								Relative Humidity, or Per Cent. of Saturation,—Av.	Per Cent. of Cloudiness of Sky,—Average.	Number of Days on which it Rained or Snowed.	Rain and Melted Snow, in Inches.	OZONE— RELATIVE MAXIMUM = 10.	
			North.	North-east.	East.	South-east.	South.	South-west.	West.	North-west.					Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.
Year, 1878.....	29.053	1.276	19	45	11	29	15	108	65	61	79	58	134	31.99	3.50	3.42
January.....	29.099	.709	4	2	1	4	3	7	5	5	81	76	13	1.12	3.74	4.48
February.....	29.026	1.033	---	8	---	---	---	8	5	5	89	56	12	2.74	5.00	5.23
March.....	29.027	.942	4	3	2	6	---	7	2	6	83	72	13	3.12	4.68	4.94
April.....	28.875	.929	2	5	1	6	---	7	3	6	69	59	12	3.76	4.37	4.53
May.....	29.013	.741	---	4	---	3	2	6	8	8	61	54	12	3.44	3.97	4.10
June.....	29.030	.677	2	3	3	---	2	12	4	4	73	45	8	3.15	3.17	3.00
July.....	29.085	.611	2	7	2	2	---	9	6	3	68	37	12	2.96	2.10	1.74
August.....	29.010	.434	---	5	1	---	3	10	7	5	74	40	8	1.85	2.32	1.52
September.....	29.157	.903	2	1	---	2	2	13	8	2	78	45	7	3.43	2.23	1.60
October.....	29.080	.684	1	1	---	2	3	12	7	4	76	54	12	1.99	2.71	1.97
November.....	29.081	.904	2	3	1	2	---	5	3	9	87	68	10	2.16	3.17	3.14
December.....	29.147	1.062	---	3	---	2	---	12	7	4	95	89	15	2.27	4.55	4.74
Monthly Av. ....	29.053	.802	1.58	3.75	.92	2.42	1.25	9.00	5.42	5.08	79	58	11.17	2.67	3.50	3.42

TABLE XXXII.—*Some Meteorological conditions at Certain Localities in Michigan, by Months, during the Year 1878.*

YEAR AND MONTHS, 1878.	DETROIT, MICH.				ESCAWABA, MICH.				GRAND HAVEN, MICH.				MARQUETTE, MICH.			
	Average Barometer.	Average Temperature.—Fahr.	Total Rain-fall, in Inches.	Prevailing Winds.	Average Barometer.	Average Temperature.—Fahr.	Total Rain-fall, in Inches.	Prevailing Winds.	Average Barometer.	Average Temperature.—Fahr.	Total Rain-fall, in Inches.	Prevailing Winds.	Average Barometer.	Average Temperature.—Fahr.	Total Rain-fall, in Inches.	Prevailing Winds.
YEAR, 1878.....	29.967	49.8	43.39	S. W.	29.290	44.6	32.73	N.	29.280	50.3	33.75	N. W.	29.199	46.3	36.19	N. W.
January.....	29.317	28.0	3.04	W.	29.360	32.5	0.31	N.	29.353	31.9	1.34	S.	29.266	24.7	1.98	N. W.
February.....	29.249	29.9	2.58	S. W.	29.307	27.5	0.89	N.	29.259	34.0	1.43	E.	29.169	33.1	1.25	N. W.
March.....	29.239	40.9	3.31	S. W.	29.281	35.3	0.78	N.	29.259	42.9	4.51	S. E.	29.144	39.7	1.62	N. W.
April.....	29.096	53.3	2.06	N. E.	29.198	44.1	5.13	N.	29.113	52.0	2.10	S. E.	29.071	44.6	3.73	N. W.
May.....	29.235	56.0	2.77	W.	29.247	48.1	3.99	S.	29.262	53.1	2.57	N. W.	29.178	47.9	1.73	N. W.
June.....	29.254	64.9	3.38	S. W.	29.272	59.4	6.49	S.	29.276	62.7	1.85	N.	29.215	59.0	2.63	N. W.
July.....	29.288	73.9	8.76	S. W.	29.323	71.1	1.56	N.	29.323	73.0	2.37	N. W.	29.259	70.2	1.78	N. W.
August.....	29.221	71.6	2.92	S. W.	29.229	67.6	2.28	S.	29.244	70.4	3.35	N. W.	29.161	68.7	2.56	N. W.
September.....	29.388	64.4	3.74	S. W.	29.353	58.4	6.15	S.	29.387	62.9	3.04	S.	29.273	59.4	5.37	N. W.
October.....	29.315	51.7	2.89	S. W.	29.283	44.5	4.17	N. W.	29.318	51.2	6.27	S.	29.163	46.6	4.44	W.
November.....	29.308	39.4	3.10	W.	29.423	35.9	0.75	N. W.	29.349	41.6	1.44	E.	29.267	38.4	1.04	S. E.
December.....	29.289	23.6	4.63	W.	29.366	30.5	0.23	N. W.	29.319	27.5	3.99	N. W.	29.224	23.1	2.46	N. W.
Average Month.....	29.267	49.8	3.62	.....	29.290	44.6	2.73	.....	29.280	50.3	2.81	.....	29.199	46.3	3.02	.....

Table XXXII. is made from data obtained from the "Annual Report of the Chief Signal Officer to the Secretary of War," for the years 1878 and 1879.

## VITAL STATISTICS OF MICHIGAN, 1878.

**EXHIBIT 13.—ALL CAUSES.—Deaths Returned as having occurred in Michigan from All Causes during the Years 1869-1878, Per Cent. of Deaths to the Estimated Population\* in each Year, and some coincident Meteorological conditions, at the Agricultural College, near Lansing, Michigan, and near the center of the thickly-settled part of the State.**

1863-1878 IN ORDER BY NET. OF REPORTED FROM ALL CAUSES TO DIED INHABITANTS, GREATEST DEATH. DATE FIRST.	Estimated Inhabitants. <sup>a</sup>	DEATHS REPORTED.		TEMPERATURE.—FAHR.; MEAN OF 3 DAILY OBSERVATIONS.—7 A. M., 2 P. M., AND 9 P. M.			HUMIDITY OF ATMOSPHERE, ETC.— MONTHLY AVERAGE. <sup>b</sup>		OZONE.—RELATIVE. MAXIMUM = 10.		Barometer Reduced to 32° Fahrenheit.	Rain and Melted Snow, in Inches.	PRESSURE OF ATMOS- PHERE, INCHES OF MERCURY, (REDUCED TO 32° F.)		
		Number.	Per Cent. of Deaths to Estimated Inhabitants.	AVERAGE RANGE.		Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Va- por in Cubic Foot of Air. <sup>c</sup>	Day.—7 A. M. to 2 P. M.	Night.—9 P. M. to 7 A. M.	RANGE OF BAROMETER.			Average Pressure.		
				Daily.	From Day to Day, 2 P. M. to 2 P. M.					Annual.				Average Daily.	
1.....	1,358,843	14,298	1.05	14.37	17.67	44.54	80	3.35	4.02	4.03	28.874	81.745	1.307	.141	28.874
2.....	1,297,973	13,371	1.03	15.31	18.14	45.51	83	3.70	2.82	4.24	28.887	26.853	1.902	.123	28.887
3.....	1,181,292	10,766	.91	17.11	19.03	49.10	81	3.90	.....	.....	28.876	37.767	1.866	.....	28.876
4.....	1,422,578	12,500	.83	15.65	18.27	47.05	78	3.95	4.10	3.99	28.935	22.939	2.069	.130	28.935
5.....	1,325,045	12,002	.87	15.17	17.84	46.54	80	3.50	3.76	4.11	28.948	30.808	2.069	.132	28.948
6.....	1,037,608	9,145	.86	15.00	.....	46.57	81	3.49	.....	.....	28.887	33.153	1.660	.....	28.887
7.....	1,559,145	12,576	.81	13.60	16.33	46.17	81	3.40	3.68	4.11	29.010	30.553	1.940	.138	29.010
8.....	1,450,297	11,990	.81	15.34	17.55	43.09	79	3.11	4.53	5.04	29.003	26.437	1.698	.306	29.003
9.....	1,632,269	12,919	.79	15.12	17.53	47.42	80	3.45	3.66	3.33	29.046	37.420	1.539	.109	29.046
10.....	1,230,925	9,728	.78	16.52	19.97	47.93	80	3.56	.....	.....	28.884	27.210	6.079	.....	28.884
11.....	1,708,822	12,766	.75	13.63	16.05	48.29	79	3.69	3.50	3.42	29.033	31.990	1.976	.115	29.033

Less than the Average.  
Death-rate.

<sup>a</sup> Population estimated from Censuses of 1860 and 1870.

<sup>b</sup> See foot-note to Exhibit K, page 238.

<sup>c</sup> Exceptions to the proposition that the temperature was less than the average in years in which the death-rate was greater than the average, and vice versa.



T 14.—ALL CAUSES.—Deaths Returned as having occurred in Michigan from All Causes, by Months, during the year 1878, and some coincident Meteorological conditions at the Agricultural College, near Lansing, Michigan, and near the center of the thickly-settled part of the State.

MONTHS IN ORDER BY NUMBER OF REPORTED DEATHS FROM ALL CAUSES, GREATEST FIRST.	DEATHS REPORTED FROM ALL CAUSES, 1878.										TEMPERATURE.—FAHR.; MEAN OF 3 DAILY OBSERVATIONS,— 7 A. M., 2 P. M., AND 9 P. M.				HUMIDITY OF ATMOSPHERE, ETC.—MONTHLY AVERAGES.		OZONE.—RELA- TIVE. MAXIMUM=10.		RAIN AND MELTED SNOW, IN INCHES.	PRESSURE OF ATMOS- PHERE.—INCHES OF MERURY. (Reduced to 32° F.)	
	NUMBER.			PER CENT. OF TOTAL.			AVERAGE RANGE.				Relative Humid- ity, or Per Cent. of Saturation.	Weight, in Grams, of Vapor in Cu- bic Foot of Air.	Day,—7 A. M. to 2 P. M.		Night,—9 P. M. to 7 A. M.		Monthly, and Year.	Average Daily.		Range of Barometer.	
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Daily.	From Day- to Day, P. M. to P. M.			Average.								
YEAR, 1878..... <sup>b</sup>	12,742	6,020	6,070	52	100.00	100.00	100.00	100.00	13.63	16.05	48.29	79	8.69	3.50	3.42	31.99	1.276	.115	29.053		
August.....	1,371	726	642	3	10.70	10.97	10.58	5.77	17.71	19.71	70.15	74	6.06	2.32	1.52	1.85	.065	29.010			
Dec.....	1,369	727	632	10	10.74	10.98	10.41	19.23	7.90	9.55	21.29	95	1.62	4.55	4.74	2.27	1.092	.142	29.117		
Sept.....	1,343	691	645	7	10.54	10.44	10.63	13.46	17.43	20.30	63.15	73	5.15	2.23	1.69	3.43	.903	.103	29.157		
October.	1,190	607	577	6	9.34	9.17	9.51	11.54	16.03	18.68	48.33	76	3.28	2.71	1.97	1.99	.684	.132	29.080		
Nov.....	1,181	617	562	5	9.28	9.32	9.26	8.85	11.57	12.60	39.29	87	2.44	3.17	3.14	2.16	.904	.134	29.081		
Average .....	1,062	552	506	4	8.33	8.33	8.33	8.33	13.63	16.05	48.29	79	3.69	3.50	3.42	2.67	.802	.115	29.053		
April.....	1,029	562	439	8	8.07	8.49	7.56	15.38	14.07	15.77	50.55	69	3.51	4.37	4.53	3.76	.929	.080	28.875		
July.....	1,017	528	489	1	7.93	7.98	8.04	1.92	14.32	18.10	73.04	65	6.83	2.10	1.74	2.96	.611	.008	29.035		
March.....	930	461	466	3	7.30	6.96	7.68	5.77	12.06	16.77	40.50	83	9.80	4.68	4.94	3.12	.942	.181	29.027		
May.....	923	484	437	2	7.24	7.31	7.20	3.85	13.08	15.45	54.57	61	3.68	3.97	4.10	3.44	.741	.100	29.013		
June.....	879	441	427	2	6.83	6.66	7.03	3.85	15.80	18.73	61.63	73	5.05	3.17	3.00	3.35	.677	.100	29.030		
Feb.....	789	407	379	3	6.19	6.15	6.24	5.77	14.59	15.93	29.97	89	1.91	5.00	5.33	2.74	1.035	.123	29.026		
Jan.....	730	369	356	5	5.73	5.57	5.86	9.61	9.60	11.03	29.11	89	1.82	3.74	4.48	1.12	.709	.146	29.009		

<sup>a</sup> See foot-note to Exhibit K, page 253.  
<sup>b</sup> Excluding Deaths in unknown month. <sup>c</sup> Exceptions to the proposition that the Range of Temperature was greater than the average number of deaths occurred, and vice versa. <sup>d</sup> Exceptions to the proposition that the Temperature was greater than the average number of deaths occurred, and vice versa. <sup>e</sup> Exceptions to the proposition that the Rain-fall was less than the average number of deaths occurred, and vice versa. <sup>f</sup> Exceptions to the proposition that the Ozone was less than the average number of deaths occurred, and vice versa. <sup>g</sup> Exceptions to the proposition that the Atmospheric Pressure, as indicated by the barometer, was greater than the average number of deaths occurred, and vice versa.

EXHIBIT K.—CROUP.—Deaths Returned as having Occurred in Michigan from Croup, by Months, during the Year 1878, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUMBER OF DEATHS FROM CROUP, GREATEST FIRST.	DEATHS FROM CROUP, 1878.		Temperature, Fahr.: Mean of 3 Daily Observations,—7 A. M., 2 P. M., and 9 P. M.			HUMIDITY OF ATMOS- PHERE, ETC.,—MONTHLY AVERAGES.				OZONE,— RELATIVE. MAXIMUM= 10.		Rain-fall, in Inches.	Average Pressure of Atmosphere, Barometer Reduced to 32° Fahrenheit.	
	Number.	Per Cent. of Total.	AVERAGE RANGE.			Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>b</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>c</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.			
			Daily.	From Day to Day,—2 P. M. to 2 P. M.										Average.
Year, 1878 .....	4236	100.00	13.63	16.03	48.29	79	3.69	2.31	9.37	3.50	3.42	31.99	29.053	
More than the Av. No. of Deaths.	December .....	45	19.07	7.90	9.55	21.29	95	1.62	1.01	10.67	4.53	4.74	2.27	29.147
	November .....	43	18.22	11.57	12.60	36.29	87	2.44	1.53	10.15	3.17	3.14	2.16	29.081
	October .....	27	11.44	16.03	18.58	*48.33	76	3.38	2.11	9.57	2.71	1.97	1.99	29.080
	January .....	23	9.75	9.00	11.03	29.11	89	1.82	1.14	10.54	3.74	4.48	1.12	29.099
	September .....	21	8.90	17.43	20.30	*63.15	78	5.18	† 3.24	8.44	2.23	1.60	3.43	29.157
Average .....	20	8.33	13.63	16.03	48.29	79	3.69	2.31	9.37	3.50	3.42	2.67	29.053	
Less than the Average No. of Deaths.	April .....	15	6.36	14.07	15.77	50.55	69	3.51	† 2.19	9.49	4.37	4.53	3.76	28.875
	February .....	13	5.51	14.59	15.93	*28.07	89	1.91	† 1.19	10.49	5.00	5.33	2.74	29.026
	March .....	11	4.66	12.06	16.77	*40.90	83	2.80	† 1.75	9.93	4.68	4.94	3.12	29.027
	May .....	11	4.66	13.08	15.45	54.57	61	3.68	† 2.30	9.98	3.97	4.10	3.44	29.013
	July .....	11	4.66	14.32	18.10	73.04	68	6.83	4.27	7.41	2.10	1.74	2.96	29.085
	June .....	8	3.39	15.80	18.73	64.08	73	5.05	3.16	8.52	3.17	3.00	3.15	29.030
	August .....	8	3.39	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	1.85	29.010

<sup>a</sup> Computed in the office of the State Board of Health from readings of the dry-bulb and wet-bulb thermometers.

<sup>b</sup> Calculated for 18 respirations per minute, of 20 cubic inches of air each.

<sup>c</sup> Assuming the air exhaled to be saturated with vapor at the temperature of 98° F., each cubic foot containing 18.69 grains, 18 respirations per minute, of 20 cubic inches of air each, making 11.68 Troy ounces of vapor exhaled daily. No correction made for expansion of air after being inhaled.

<sup>d</sup> Includes 37 deaths from Membranous Croup.

<sup>e</sup> Exceptions to the proposition that more than an average number of deaths from croup occurred in months when the temperature was less than the average, and vice versa.

<sup>f</sup> Exceptions to the proposition that more than an average number of deaths from croup occurred in months in which there was less than the average quantity of vapor inhaled, and vice versa. It should be borne in mind that probably a less proportion of the deaths were returned for months in early part of the year.

*Croup.*—This disease is reported to have caused 236 deaths in this State in 1878,—1.85 per cent. of the deaths from all causes. This is the largest number ever returned as having died from croup in this State. The increase in the number returned for 1878 over the number returned for any previous year is very marked. The annual average number for the nine years preceding 1878 is 15½, which is over one-half the number returned for 1878.



In 1878, the largest number of deaths from croup occurred in December, and 48.73 per cent. occurred during the last three months of the year. One hundred and ninety-five of the 236 decedents from this disease (or 82.63 per cent.) were under 5 years of age.

The range of temperature during the year 1878, at the Michigan Agricultural College, was 105 degrees,—from 98° in July to -7° in February.

*Croup and Diphtheria.*—The number of deaths from croup and diphtheria combined may be studied in Exhibit L in connection with some coincident meteorological conditions.

**EXHIBIT L.—CROUP AND DIPHTHERIA.**—*Deaths in Michigan from Croup and Diphtheria, by Months, during the year 1878, and some coincident Meteorological conditions.*

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM CROUP AND DIPHTHERIA, GREATEST FIRST.		DEATHS FROM CROUP AND DIPHTHERIA, 1878,		Temperature,—Fahr.; Mean of Three Daily Observations, — 7 A. M., 2 P. M., and 9 P. M.			HUMIDITY OF ATMOS- PHERE, ETC.,— MONTHLY AVERAGES.			OZONE,— RELATIVE. MAXIMUM = 10		Average Pressure of Atmosphere. Barometer Reduced to 32° Fahr.	
		Number.	Per Cent. of Total.	AVERAGE RANGE.		Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one Person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.		
				Daily.	From Day to Day,— 2 P. M. to 2 P. M.								Average.
Year, 1878.....		1,121	100.00	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053
More than the Average No. of Deaths.	Nov.....	177	15.79	11.57	12.60	36.29	87	2.44	1.53	10.15	3.17	3.14	29.081
	Dec.....	172	15.34	7.90	9.55	21.29	93	1.62	1.01	10.67	4.55	4.74	29.147
	Oct.....	158	14.09	16.03	18.58	c 43.33	76	3.38	2.11	9.57	2.71	1.97	29.080
	Sept.....	134	11.95	17.43	20.30	c 63.15	78	5.18	3.24	8.44	2.23	1.60	29.157
Average.....		93	8.33	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053
Less than the Average No. of Deaths.	Jan.....	79	7.05	9.00	11.03	c 29.11	89	1.82	1.14	10.54	3.74	4.48	29.099
	Feb.....	76	6.78	14.59	15.93	c 23.07	89	1.91	1.19	10.49	5.00	5.33	29.026
	Aug.....	65	5.89	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	29.010
	March.....	62	5.53	12.06	16.77	c 40.90	83	2.80	1.75	9.03	4.68	4.94	29.027
	April.....	55	4.91	14.07	15.77	50.55	69	3.51	2.19	9.49	4.37	4.53	29.875
	May.....	53	4.73	13.08	15.45	54.57	61	3.68	2.30	9.33	3.97	4.10	29.013
	July.....	47	4.19	14.32	18.10	73.04	68	6.83	4.27	7.41	2.10	1.74	29.085
	June.....	42	3.75	15.80	18.73	64.08	73	5.05	3.16	8.52	3.17	3.00	29.030

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>b</sup> Excluding 2 deaths from Diphtheria in unknown month.

<sup>c</sup> Exceptions to the proposition that more than an average number of deaths from Croup and Diphtheria occurred in months in which the mean temperature was less than the average, and vice versa.

<sup>d</sup> Exceptions to the proposition that more than an average number of deaths from Croup and Diphtheria occurred in months in which there was less than the average quantity of vapor inhaled, vice versa.

**EXHIBIT M.—DIPHTHERIA.**—*Deaths from Diphtheria Returned as having occurred in Michigan during the Year 1878, and some coincident Meteorological conditions.*

MONTHS  IN ORDER BY NUMBER OF DEATHS FROM DIPHTHERIA, GREATEST FIRST.	DEATHS FROM DIPHTHERIA, 1878.		TEMPERATURE.—FAHR.; MEAN OF THREE DAILY OBSERVATIONS.—7 A. M., 2 P. M., AND 9 P. M.				HUMIDITY OF ATMOSPHERE, ETC.— MONTHLY AVERAGES.				WIND.— RELATIVE MAXIMUM =10.		Average Pressure of Atmosphere. Bar- ometer Reduced to 32° Fahrenheit.
	Number.	Per Cent. of Total.	AVERAGE RANGE.		Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one per- son in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>	Day.—7 A. M. to 2 P. M.	Night.—9 P. M. to 7 A. M.		
			Daily.	From Day to Day,— 2 P. M. to 2 P. M.									
Year, 1879.....	886	100.00	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053	
More than Av. No. of Deaths.	November..	134	15.14	11.57	12.60	36.29	87	2.44	1.53	10.15	3.17	3.11	29.661
	October.....	131	14.80	16.03	18.58	48.33	76	3.38	2.11	9.57	2.71	1.97	29.080
	December..	127	14.35	7.90	9.53	21.29	95	1.62	1.01	10.67	4.55	4.74	29.147
	September..	113	12.77	17.43	20.30	63.15	78	5.18	4.32	8.44	2.23	1.00	29.157
Average.....	74	8.33	18.63	16.06	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053	
Less than the Average Number of Deaths.	February..	63	7.12	14.59	15.93	28.07	89	1.91	4.19	10.49	5.00	5.33	29.026
	August.....	58	6.55	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	29.010
	January....	56	6.33	9.00	11.03	29.11	89	1.82	4.14	10.54	3.74	4.48	29.060
	March.....	51	5.76	12.06	16.77	40.90	83	2.80	4.75	9.93	4.08	4.94	29.027
	May.....	42	4.75	13.08	15.45	51.57	61	3.68	4.30	9.38	3.97	4.10	29.013
	April.....	40	4.52	14.07	15.77	50.55	69	3.51	4.19	9.49	4.37	4.55	28.875
	July.....	36	4.07	14.32	18.10	73.04	63	6.83	4.27	7.41	2.10	1.74	29.085
June.....	34	3.84	15.80	18.73	64.08	73	5.05	3.16	8.52	3.17	3.00	29.030	

<sup>a</sup> See foot-notes to Exhibit K, page 253.

<sup>b</sup> Excluding 2 deaths in unknown month.

<sup>c</sup> Exceptions to the proposition that more than an average number of deaths occurred in months in which the temperature was less than the average, and vice versa.

<sup>d</sup> Exceptions to the proposition that more than an average number of deaths occurred in months in which less than an average quantity of vapor was inhaled, and vice versa.

**DIPHTHERIA.**—The mortality from this disease in 1878 was very great, 887 deaths having been returned for 1878. This is 6.95 per cent. of the deaths from all causes, and the largest number ever returned to the State Department. The order of the years 1869–1878, those first in order which show the least number of deaths from diphtheria, is as follows: 1869, 89; 1870, 121; 1871, 121; 1872, 192; 1875, 207; 1874, 213; 1873, 217; 1876, 311; 1877, 593; 1878, 887. It therefore appears that the number in 1878 is greatly in excess of the number returned for any previous year. The annual average number returned for the nine years 1869–1877 was 229, which is only 25.82 per cent. of the "returned for 1878. In the remarks on croup on a "at increase in the number of deaths



from croup in 1878 over the annual average for the nine years 1869-1877 was noticed.

In 1878 the largest number occurred in November, and during the last four months of the year 56.94 per cent. of all the deaths from this disease occurred, as shown by the tables and exhibits; 41.26 per cent. of all decedents from diphtheria in 1878 in this State were under 5 years of age, and 76.10 per cent. were under 10 years of age.

Exhibit M contains data concerning deaths from diphtheria, and coincident meteorological conditions.

*Cerebro-spinal Meningitis.*—There were only eight deaths returned as having been caused by this disease in this State in 1878,—the smallest number returned since 1871. Four of these eight deaths occurred in March. Exhibit V shows, by months, by sex, the number of deaths from each of several diseases in 1878, which diseases are grouped together in Exhibit 15, and may there be studied in their relation to certain coincident meteorological conditions by months.

EXHIBIT V.—CEREBRO-SPINAL MENINGITIS, ETC.—*The Total Number of Deaths Returned as having occurred from Cerebro-spinal Meningitis, Spotted Fever, Spinal Meningitis, Meningitis, and Spinal Fever, in Michigan during the Year 1878, by Months, and by Sex.*

CAUSES OF DEATH.	SEX.	YEAR, 1878.	MONTHS, 1878.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Total.....	Total..	109	6	6	14	9	12	7	6	13	14	7	8	7
	Males..	52	4	3	3	3	6	3	3	5	8	5	6	3
	Fema's	57	2	3	11	6	6	4	3	8	6	2	2	4
Cerebro- spinal Meningitis	Total..	8	1	1	4		1						1	
	Males..	5	1		2		1						1	
	Fema's	3		1	2									
Spotted Fever.....	Total..													
	Males..													
	Fema's													
Spinal Meningitis	Total..	28	2	2	4	1	3	2	3	2	2	3	3	1
	Males..	15	2	2		1	2		2		1	2	2	1
	Fema's	13			4		1	2	1	2	1	1	1	
Meningitis	Total..	10			1	2		1	1	2	1		1	1
	Males..	7			1	1		1	1		1		1	1
	Fema's	3				1				2				
Spinal Fe- ver.....	Total..	63	3	3	5	6	8	4	2	9	11	4	3	5
	Males..	25	1	1		1	3	2		5	6	3	2	1
	Fema's	38	2	2	5	5	5	2	2	4	5	1	1	4

EXHIBIT 15.—CEREBRO-SPINAL MENINGITIS, ETC.—Deaths Returned as having occurred in Michigan from Cerebro-spinal Meningitis, Spotted Fever, Spinal Meningitis, Meningitis, and Spinal Fever, by Months, during the Year 1878, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUM- BER OF DEATHS, FROM CER- EBRO-SPINAL MENINGITIS, SPOTTED FEVER, SPINAL MENINGITIS, MENINGITIS, AND SPINAL FEVER, GREAT- EST FIRST.	Deaths from Cerebro- Spinal Men- ingitis, etc., 1878.		Temperature.—Fabr.: Mean of Three Daily Observations,—7 A. M., 2 P. M. and 9 P. M.			Humidity of Atmosphere, Etc.—Monthly Averages.		Ozone.— Relative. Maximum = 10.		Rain and Melted Snow, in Inches.	Pressure of Atmos- phere. Inches of Mercury. (Reduced to 32° F.)			
	Number.	Per Cent. of Total.	Average Range.			Relative Humidity, or Per Cent. of Satur- ation.	Weight, in Grains of Vapor in Cubic Foot of Air. <sup>a</sup>	Day,—7 A. M. to 2 P. M. Night,—9 P. M. to 7 A. M.	Range of Barometer.		Average Pressure.			
			Daily.	From Day to Day,—2 P. M. to 9 P. M.	Average.				Monthly, and Year.			Average, Daily.		
Year, 1878...	109	100.00	13.63	16.05	48.29	79	3.69	3.50	3.42	31.99	1.276	.115	29.033	
More than Av. No. of Deaths.	March.	14	12.84	b 12.06	16.77	40.90	a 83	12.80	e 4.68	e 4.94	3.12	.942	.181	29.027
	Sept. ...	14	12.84	17.43	20.30	d 63.15	78	5.18	2.23	1.60	3.43	.903	.103	b 29.157
	Aug. ...	13	11.93	17.71	19.74	d 70.15	74	6.06	2.32	1.52	1.85	.434	.065	29.010
	May ...	12	11.01	b 13.08	c 13.45	d 54.57	61	f 3.68	e 3.97	e 4.10	3.44	.741	.100	29.013
Average ....	9.1	8.33	13.63	16.03	48.29	79	3.69	3.50	3.42	2.67	.802	.115	29.053	
Less than the Av. No. of Deaths.	April...	9	8.26	b 14.07	13.77	50.55	a 69	3.51	4.37	4.53	3.76	.929	.080	b 28.875
	Nov. ....	8	7.34	11.57	12.60	d 36.29	87	2.44	e 3.17	e 3.14	2.16	.904	.134	29.031
	June ...	7	6.42	b 15.80	c 18.73	64.08	e 73	15.05	e 3.17	e 3.00	3.15	.677	.100	b 29.030
	Oct. ....	7	6.42	b 16.03	c 18.58	48.33	a 76	3.38	e 2.71	e 1.97	1.99	.684	.132	29.080
	Dec. ....	7	6.42	7.90	9.55	d 21.29	95	1.62	4.55	4.74	2.27	1.062	.142	29.147
	Jan. ....	6	5.50	9.00	11.03	d 23.11	80	1.82	3.74	4.48	1.12	.709	.146	29.090
	Feb. ....	6	5.50	b 14.50	15.93	d 28.07	89	1.91	5.00	5.33	2.74	1.033	.123	b 29.036
July ...	6	5.50	b 14.22	c 18.10	73.94	a 68	f 6.83	e 2.10	e 1.74	2.96	.611	.068	29.085	

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>b</sup> Exceptions to the proposition that the Daily Range of Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>c</sup> Exceptions to the proposition that the Range of Temperature "from day to day" was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>d</sup> Exceptions to the proposition that the Temperature was lower than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>e</sup> Exceptions to the proposition that the Relative Humidity was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>f</sup> Exceptions to the proposition that the Absolute Humidity was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>g</sup> Exceptions to the proposition that the Ozone was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>h</sup> Exceptions to the proposition that the Atmospheric Pressure indicated by the barometer, was less than the average in months when more than the average number of deaths occurred, and vice versa.

Congestive Chills and certain coincident were in Michigan in 1878 shows the largest number were no deaths returned.

The relation of congestive chills and September vary there



**EXHIBIT U.—CONGESTIVE CHILLS.—Deaths Returned as having occurred in Michigan from Congestive Chills by Months, during the Year 1878, and some coincident Meteorological conditions.**

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM CONGES- TIVE CHILLS, GREATEST FIRST.	Deaths from Con- gestive Chills, 1878.		Temperature, Fahr.; Mean of 3 daily ob- servations, 7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmosphere, Etc.,—Monthly Averages.			Ozone,—Rel- ative. Max- imum = 10.		Rain and Melted Snow, in Inches.	Pressure of Atmos- phere. Inches of Mer- cury. (Reduced to 32° F.)				
	Number.	Per Cent. of Total.	Average Range.		Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.		Range of Barometer.				
			Daily.	From Day to Day, 2 P. M. to 2 P. M.								Average.	Monthly, and Year.	Average, Daily.	Average Pressure.	
Year, 1878.	64	100.00	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	31.99	1.276	.115	29.053	
More than Av. No. of Deaths.	Sept..	14	21.88	17.43	20.30	63.15	78	5.18	3.21	8.44	2.23	1.60	3.43	.903	i .103	29.157
	Dec....	8	12.50	b 7.90 c 9.55	d 21.29	95	e 1.62	1.01	10.67	f 4.55 f 4.74	2.27	1.062	.142	29.147		
	July..	7	10.94	14.32	18.10	73.04	68	6.83	4.27	7.41	2.10	1.74	2.96	h .611 i .068	g 29.085	
	Aug..	7	10.94	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	1.85	h .434 i .065	g 29.010	
	June..	6	9.38	15.80	18.73	64.08	73	5.05	3.16	8.52	3.17	3.00	3.15	h .677 i .100	g 29.030	
Average....	5.3	8.33	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	2.67	.802	.115	29.053	
Less than the Av. No. of Deaths.	Oct....	5	7.81	b 16.03 c 18.58	d 48.33	76	3.38	2.11	9.57	f 2.71 f 1.97	1.99	.684	i .132	g 29.080		
	Nov..	5	7.81	11.57	12.60	36.29	87	2.44	1.53	10.15	f 3.17 f 3.14	2.16	h .904 i .134	g 29.081		
	Mar..	4	6.25	12.06	c 16.77	40.90	83	2.80	1.75	9.93	4.68	4.94	3.12	h .942 i .181	29.027	
	Apr....	3	4.69	b 14.07	15.77	d 50.55	69	3.51	2.19	9.49	4.37	4.53	3.76	h .929 .080	28.875	
	May .	3	4.69	13.08	15.45	d 54.57	61	3.68	2.30	9.38	3.97	4.10	3.44	.741 .100	29.013	
	Feb....	2	3.13	b 14.59	15.93	28.07	89	1.91	1.19	10.49	5.00	5.33	2.74	h 1.033 i .123	29.026	
	Jan....	-----	-----	9.00	11.03	29.11	89	1.82	1.14	10.54	3.74	4.48	1.12	.709	i .146	g 29.090

\* See foot-notes to Exhibit K, page 258.

b Exceptions to the proposition that the Daily Range of Temperature was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

c Exceptions to the proposition that the Range of Temperature "from day to day" was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

d Exceptions to the proposition that the temperature was *higher* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

e Exception to the proposition that the Absolute Humidity was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

f Exceptions to the proposition that the Ozone was *less* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

g Exceptions to the proposition that the Atmospheric Pressure indicated by the Barometer was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

h Exceptions to the proposition that the Range of Barometer was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

i Exceptions to the proposition that the Average Daily Range of Barometer was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

**EXHIBIT 22.—CEPHALITIS.—Deaths Returned as having occurred in Michigan, from Cephalitis, by Months, during the Year 1878, and some coincident Meteorological conditions.**

MONTHS IN ORDER BY NUMBER OF DEATHS FROM CEPHALITIS, GREATEST FIRST.	Deaths from Cephalitis, 1878.		Temperature,—Fahr.; Mean of Three Daily Observations, 7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmosphere, Etc.,—Monthly Averages.				Ozone,— Relative. Maximum = 10.		Rain-fall in Inches.	Average Pressure of Atmosphere, (Barometer Reduced to 32° Fahr.)	
	Number.	Per Cent of Total.	Average Range.		Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Va- por in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor inhaled by one per- son in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.			
			Daily.	From Day to Day, 2 P. M. to 2 P. M.										
Year, 1878.....	225	100.00	13.63	16.03	48.29	79	3.69	2.31	9.37	3.50	3.42	31.99	29.053	
More than the Average Number of Deaths.	August....	28	12.44	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	1.85	29.010
	September	27	12.00	17.43	20.30	63.15	78	5.18	3.24	8.41	2.23	1.60	3.41	29.157
	February....	22	9.78	14.59	15.93	d 28.07	e 89	f 1.91	1.19	10.49	g 5.00	g 5.33	2.74	29.026
	June.....	22	9.78	15.80	18.73	64.08	73	5.05	3.16	8.52	3.17	3.00	3.15	29.039
	November....	20	8.89	b 11.57	c 12.60	d 36.29	e 87	f 2.44	1.53	10.15	3.17	3.14	2.16	29.081
	April.....	19	8.44	14.07	c 15.77	50.55	69	f 3.51	2.19	9.49	g 4.37	g 4.53	3.76	28.874
	July.....	19	8.44	14.32	18.10	73.04	63	6.83	4.27	7.41	2.10	1.74	2.96	29.085
	December....	19	8.44	b 7.90	c 9.55	d 21.29	e 95	f 1.62	1.01	10.67	g 4.55	g 4.74	2.27	29.147
Average.....	18.8	8.36	13.63	16.03	48.29	79	3.69	2.31	9.37	3.50	3.42	2.67	29.053	
Less than Av. No. of Deaths.	October....	18	8.00	b 16.03	c 18.58	d 48.33	e 76	3.38	2.11	9.57	g 2.71	g 1.97	1.99	29.080
	March.....	15	6.67	12.06	c 16.77	40.90	83	2.80	1.75	9.93	4.68	4.94	3.12	29.027
	May.....	10	4.44	13.08	15.45	d 54.57	e 61	3.68	2.30	9.38	3.97	4.10	3.44	29.013
	January....	6	2.67	9.00	11.03	29.11	89	1.82	1.14	10.54	2.74	4.48	1.12	29.099

<sup>a</sup> See foot-notes to Exhibit K, page 258.

<sup>b</sup> Exceptions to the proposition that the Daily Range of Temperature was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>c</sup> Exceptions to the proposition that the Range of Temperature "from day to day" was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that the Temperature was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>e</sup> Exceptions to the proposition that the Relative Humidity was *less* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>f</sup> Exceptions to the proposition that the Absolute Humidity was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>g</sup> Exceptions to the proposition that the Ozone was *less* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

*Cephalitis*.—This disease is reported to have caused 225 deaths in Michigan in 1878,—the smallest number returned for any of the years 1869–1878, except for the year 1871. Nearly one-quarter of all the deaths from cephalitis (inflammation of the brain) in 1878 occurred in August and September,—the months in which the mortality from diarrhea and dysentery was greatest,—and 64.44 per cent. of all the decedents from this disease were under five years of age. This disease may be further studied in connection with certain meteorological conditions in Exhibit 23.



**EXHIBIT W.—INTERMITTENT FEVER.**—Deaths returned as having occurred in Michigan from Intermittent Fever, by Months, during the Year 1878, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM INTER- MITTENT FEVER, GREATEST FIRST.	Deaths from Inter- mittent Fever, 1878.		Temperature, Fahr.; Mean of 3 daily ob- servations, 7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmos- phere, Etc.,—Monthly Averages.			Ozone,—Rel- ative. Maximum = 10.		Rain and Melted Snow, in Inches.	Pressure of Atmos- phere. Inches of Mercury. (Reduced to 32° F.)				
	Number.	Per Cent. of Total.	Average Range.		Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.		Night,—0 P. M. to 7 A. M.	Range of Barometer.			
			Daily.	From Day to Day,—2 P. M. to 2 P. M.									Monthly, and Year.	Average, Daily.	Average Pressure.	
Year, 1878.	46	100.00	13.63	16.05	48 29	79	3.69	2.31	9.37	3.50	3.42	31.99	1.276	.115	29.053	
More than the Av. No. of Deaths.	Aug..	10	21.74	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	1.85	.431	.065	29.010
	Dec...	6	13.04	7.90	9.55	21.29	95	1.62	1.01	10.67	4.55	4.74	2.27	1.062	.142	29.147
	Sept...	5	10.87	17.43	20.30	63.15	78	5.18	3.24	8.44	2.23	1.60	3.43	.903	.103	29.157
	Oct...	5	10.87	16.03	18.58	48.33	76	3.33	2.11	9.57	2.71	1.97	1.99	1.684	.132	29.080
	Feb...	4	8.70	14.59	15.93	28.07	89	1.91	1.19	10.49	5.00	5.33	2.74	1.033	.123	29.026
	Nov...	4	8.70	11.57	12.60	36.29	87	2.44	1.53	10.15	3.17	3.14	2.16	.904	.134	29.081
Average ...	3.8	8.33	13.63	16.05	48 29	79	3.69	2.31	9.37	3.50	3.42	2.67	.802	.115	29.053	
Less than the Average No. of Deaths.	Mar...	3	6.52	12.06	16.77	40.90	83	2.80	1.75	9.93	4.68	4.94	3.12	.942	.181	29.027
	June.	3	6.52	15.80	18.73	61.08	73	5.05	3.16	8.52	3.17	3.00	3.15	.677	.100	29.030
	July...	3	6.52	14.32	18.10	73.04	68	6.88	4.27	7.41	2.10	1.74	2.96	.611	.068	29.085
	April	2	4.35	14.07	15.77	50.55	69	3.51	2.19	9.49	4.37	4.53	3.76	.929	.080	28.875
	Jan...	1	2.17	9.00	11.03	29.11	89	1.82	1.14	10.54	3.74	4.48	1.12	.709	.146	29.099
	May...	-----	-----	13.08	15.45	54.57	61	3.68	2.30	9.38	3.97	4.10	3.44	.741	.100	29.013

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>b</sup> Excluding 1 death in unknown month.

<sup>c</sup> Exceptions to the proposition that the Daily Range of Temperature was greater than the average in months where more than the average number of deaths occurred, and vice versa.

<sup>d</sup> Exceptions to the proposition that the Range of Temperature "from day to day" was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>e</sup> Exceptions to the proposition that the Temperature was higher than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>f</sup> Exceptions to the proposition that the Absolute Humidity was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>g</sup> Exceptions to the proposition that the Ozone was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>h</sup> Exceptions to the proposition that the Atmospheric Pressure indicated by the Barometer was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>i</sup> Exceptions to the proposition that the Range of Barometer was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>j</sup> Exceptions to the proposition that the Average Daily Range of Barometer was greater than the average in months when more than the average number of deaths occurred, and vice versa.

The deaths from intermittent fever may be studied, in connection with coincident meteorological conditions, in Exhibit W. The largest number of deaths

from this disease was returned for August, none having been returned for the month of May.

**EXHIBIT X.—TYPHOID FEVER.—Deaths Returned as having occurred in Michigan from Typhoid Fever, by Months, during the Year 1878, and some coincident Meteorological conditions.**

MONTHS IN ORDER	Deaths from Typhoid Fever, 1878.		Temperature, Fahr.; Mean of Three Daily Observations, 7 A. M., 2 P. M. and 9 P. M.			Humidity of Atmosphere, Etc.—Monthly Averages.				Ozone,—Relative. Maximum = 10.		Rain and Melted Snow, in Inches.	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)			
	BY NUMBER OF DEATHS FROM TYPHOID FEVER, GREATEST FIRST.	Number.	Per Cent. of Total.	Average Range.		Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one Person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day, 7 A. M. to 2 P. M.	Night, 9 P. M. to 7 A. M.		Range of Barometer.			
				Daily.	From Day to Day,—2 P. M. to 2 P. M.								Average.	Monthly, and Year.	Average, Daily.	Average Pressure.
Year, 1878..	329	100.00	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	31.99	1.276	.115	29.053	
More than the Av. No. of Deaths.	Sept..	54	16.41	17.43	20.30	63.15	78	5.18	3.24	8.44	2.23	1.60	3.43	.903	.103	29.137
	Oct..	52	15.81	16.03	18.58	48.33	76	3.38	2.11	9.57	2.71	1.97	1.99	.684	.132	29.080
	Aug..	42	12.77	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	1.85	.434	.065	29.010
	Nov...	41	12.46	11.57	12.00	36.29	87	2.44	1.53	10.15	3.17	3.14	2.16	.904	.134	29.081
	Dec...	31	9.42	7.90	9.55	21.29	95	1.62	1.01	10.67	4.55	4.74	2.27	1.062	.142	29.147
Average...	27	8.33	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	2.67	.802	.115	29.053	
Less than the Average Number of Deaths.	May.	21	6.38	13.08	15.45	54.57	61	3.68	2.30	9.38	3.97	4.10	3.44	.741	.100	29.013
	July..	21	6.38	14.32	18.10	73.04	68	6.83	4.27	7.41	2.10	1.74	2.96	.611	.068	29.085
	Mar...	16	4.86	12.06	16.77	40.90	83	2.80	1.75	9.93	4.68	4.94	3.12	.942	.181	29.027
	April.	14	4.26	14.07	15.77	50.55	69	3.51	2.19	9.49	4.37	4.53	3.76	.929	.080	28.875
	Feb...	13	3.95	14.59	15.93	28.07	89	1.91	1.19	10.49	5.00	5.33	2.74	1.033	.123	29.026
	June..	13	3.95	15.80	18.73	64.08	73	5.05	3.16	8.52	3.17	3.00	3.15	.677	.100	29.030
	Jan....	11	3.34	9.00	11.03	29.11	89	1.82	1.14	10.54	3.74	4.48	1.12	.709	.146	29.099

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>b</sup> Exceptions to the proposition that the Daily Range of Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>c</sup> Exceptions to the proposition that the Range of Temperature "from day to day" was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>d</sup> Exceptions to the proposition that the Temperature was higher than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>e</sup> Exceptions to the proposition that the Absolute Humidity was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>f</sup> Exceptions to the proposition that the Dew was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>g</sup> Exceptions to the proposition that the Atmospheric Pressure was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>h</sup> Exceptions to the proposition that the Barometer was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>i</sup> Exceptions to the proposition that the Barometer was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>j</sup> Exceptions to the proposition that the Barometer was less than the average in months when more than the average number of deaths occurred, and vice versa.



*Typhoid Fever.*—Three hundred and twenty-nine (329) deaths from typhoid fever were returned as having occurred in this State in 1878,—2.58 per cent. of the deaths from all causes. This is the smallest number of deaths ever returned to the State Department as having been caused by this disease in Michigan in any one year. In 1878, September shows a larger number and proportion of deaths from typhoid fever than any other month, and the decedents aged 15 to 20 years were in excess of those at any other period of life. In Exhibit X the relation of the deaths from typhoid fever to the coincident meteorological conditions may be studied.

*Diarrhea.*—Only 173 deaths from diarrhea were returned as having occurred in Michigan in 1878,—1.36 per cent. of the deaths from all causes. This is a marked falling off from the number returned for any previous year,—a fact which is mentioned also in regard to typhoid fever, on this page. The average annual number of deaths from diarrhea returned for the nine years 1869–1877 was 335, from which it appears that the number returned for 1878 (173) is only about one-half (51.64 per cent.) of the annual average for the nine preceding years. The largest per cent. in 1878 occurred in August, and 67.05 per cent. occurred during the months of July, August, and September, and of all the decedents from this disease, 87.86 per cent. were under 5 years of age.

Exhibit 16 facilitates the study of the relation of deaths from diarrhea in July and August of each of the years 1872–1878 to the coincident meteorological conditions. According to this Exhibit, a warm, moist atmosphere seems to be attended with a large mortality from diarrhea.

Exhibit 21 affords an opportunity of studying the relations which this disease bears to meteorological conditions during the year 1878.

Table XXI. shows the number of deaths from diarrhea and from dysentery in 1878 in each of eleven geographical divisions of Michigan. The northeastern division of the lower peninsula shows the largest proportion of deaths from diarrhea, and the south-western was reported to have had no deaths from this disease in 1878.



EXHIBIT 16.—DIARRHEA.—Deaths in Michigan from Diarrhea in July and August of each of the Years 1873-1878, the Average for Six Years ending with 1878, and some coincident Meteorological conditions, at the Agricultural College, near the center of the thickly-settled part of the State.

JULY AND AUGUST OF EACH OF THE YEARS 1873-1878.		Number of Deaths from Diarrhea.	Temperature.—F.; Mean of 3 Daily Ob- servations,—7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmosphere, Etc.— Monthly Averages.		Ozone.— Relative. Maximum =10.		Rain and Melted Snow, in Inches.	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)		
			Average Range.	Relative Humidity, or Per Cent. of Satur- ation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.	Monthly.	Range of Barometer.				
									Daily.		From Day to Day,—2 P. M. to 2 P. M.	Average.	Average, Daily.
Average	July.....	61	16.33	19.18	72.05	74	6.43	2.39	2.16	2.968	.525	.166	29.993
	August.....	96	17.27	19.62	69.39	78	6.07	2.65	1.75	2.489	.507	.149	29.992
1873.....	July.....	65	15.33	18.68	70.82	78	6.43	3.59	3.06	5.124	.453	.063	29.914
	August.....	105	18.55	21.32	69.49	81	6.29	3.55	2.65	4.796	.574	.084	29.957
1874.....	July.....	61	17.68	21.85	72.02	71	6.00	1.80	1.50	2.560	.465	.078	29.967
	August.....	104	17.23	19.61	69.39	74	5.75	2.80	1.10	1.278	.503	.065	29.924
1875.....	July.....	56	16.28	18.26	69.67	78	5.91	3.52	3.22	2.420	.564	.086	29.944
	August.....	80	16.90	18.61	65.48	77	5.22	3.50	3.70	1.470	.806	.652	29.025
1876.....	July.....	69	15.87	17.90	72.48	78	6.76	2.16	1.53	2.100	.507	.070	29.989
	August.....	98	17.74	20.07	71.55	76	6.31	1.97	1.26	1.290	.459	.061	29.948
1877.....	July.....	53	18.39	20.42	71.43	70	5.76	2.71	1.77	2.250	.655	.088	29.082
	August.....	96	17.45	19.48	68.46	78	5.74	3.42	1.03	6.570	.401	.056	29.046
1878.....	July.....	39	14.35	18.10	73.04	69	6.83	2.10	1.74	2.960	.611	.063	29.026
	August.....	47	17.71	19.74	70.15	74	6.06	2.32	1.52	1.860	.434	.065	29.010

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>c</sup> Exceptions to the proposition that the Average Daily Range of Temperature was less than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that the Average Range of Temperature "from day to day" was less than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

<sup>e</sup> Exceptions to the proposition that the Average Temperature was higher than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

<sup>f</sup> Exceptions to the proposition that the amount of rain and melted snow was greater than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

<sup>g</sup> Exceptions to the proposition that the Average Relative Humidity was greater than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

<sup>h</sup> Exceptions to the proposition that the Absolute Humidity was greater than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

<sup>i</sup> Exceptions to the proposition that the Day or Night Ozone was less than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

<sup>j</sup> Exceptions to the proposition that the Atmospheric Pressure was more than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and *vice versa*.

**EXHIBIT 21.—DIARRHEA.—Deaths Returned as having occurred in Michigan from Diarrhea, by Months, during the Year 1878, and some coincident Meteorological conditions at the Agricultural College, near Lansing, Michigan, and near the center of the thickly-settled part of the State.**

MONTHS IN ORDER BY NUMBER OF DEATHS FROM DIARRHEA, GREATEST FIRST.	Deaths from Diarrhea, 1878.		Temperature,— Degrees Fahr.			Inches of Rain and Melted Snow.	Humidity of Atmosphere. Av. of Obs. at 7 A. M., 2 P. M., and 9 P. M., daily.		Ozone, Rela- tive.—Scale of 10 Degrees of Colora- tion.		per Hour, — Average Velocity of Wind, Miles By Registering Anemometer. <sup>b</sup>	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)			
	Number.	Per Cent. of Total.	Range Av. Daily, and for Year.				Relative Humidity, or Per Cent. of Saturation.	Absolute Humidity.—Grains of Vapor in a Cubic Foot of Air. <sup>a</sup>	Day Observation.—7 A. M. to 2 P. M.	Night Observation.—9 P. M. to 7 A. M.		Range of Barometer.			
			Of Observations at 7 A. M., 2 P. M., and 9 P. M., Daily.	During Day and Follow'g Night, by Regist'g Ther- mometer, Obs. at 7 A. M.	Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.							Monthly, and for Year.	Average Daily Range of Observations at 7 A. M., 2 P. M., and 9 P. M.	Average Pressure.	
Year 1878.....	173	100.00	13.56	20.31	48.29	31.99	79	3.69	3.50	3.42	5.1	1 276	.115	29.053	
More than Av. No. of Deaths.	Aug...	47	27.17	17.71	27.69	70.15	1.85	74	6.06	2.32	1.52	3.1	1.434	k .065	1 29.010
	July .	39	22.54	14.29	22.80	73.04	2.96	68	6.83	2.10	1.74	3.1	1.611	k .068	29.085
	Sept...	30	17.34	17.43	24.40	63.15	3.43	78	5.18	2.23	1.60	4.8	.903	k .103	29.157
	Average.....	14	8.09	13.56	20.31	48.29	2.67	79	3.69	3.50	3.42	5.1	.802	.115	29.053
Less than the Average No. of Deaths.	Oct. .	12	6.94	15.77	22.00	48.33	1.99	76	3.38	2.71	1.07	6.2	.684	k .132	1 29.080
	June .	10	5.78	15.80	24.70	64.08	3.15	73	5.05	3.17	3.00	4.3	.677	.100	29.030
	Nov...	7	4.05	11.57	15.70	36.29	2.16	87	2.44	3.17	3.14	5.0	1.904	k .134	29.081
	Dec...	7	4.05	7.90	12.00	21.59	2.27	95	1.62	4.53	4.74	....	1.062	k .142	1 29.147
	March	5	2.89	12.06	16.10	40.90	3.12	53	2.80	4.68	4.94	6.7	1.942	k .181	29.027
	May ..	5	2.89	13.08	22.17	54.57	3.44	61	3.68	3.97	4.10	5.6	.741	.100	29.013
	Jan....	4	2.31	8.74	12.11	29.11	1.12	89	1.82	3.74	4.48	5.7	.709	k .146	1 29.069
	April .	4	2.31	14.07	20.07	450.55	3.76	69	3.51	4.37	4.53	6.8	1.929	.080	28.875
	Feb...	3	1.73	14.55	20.50	28.07	2.74	89	1.91	5.00	5.33	5.0	1.033	k .123	29.026

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>b</sup> The observations of the Velocity of the Wind were made at the office of the State Board of Health, Lansing.

<sup>c</sup> Exceptions to the proposition that more than an average number of deaths from Diarrhea occurred in months when the Average Daily Range of Temperature was greater than the average, and vice versa.

<sup>d</sup> Exceptions to the proposition that more than an average number of deaths from Diarrhea occurred in months when the Average Daily Temperature was higher than the average, and vice versa.

<sup>e</sup> Exceptions to the proposition that more than an average number of deaths from Diarrhea occurred in months when the Relative Humidity of the Atmosphere was less than the average, and vice versa.

<sup>f</sup> Exception to the proposition that more than an average number of deaths from Diarrhea occurred in months when the Absolute Humidity of the Atmosphere was greater than the average, and vice versa.

<sup>g</sup> The proposition that more than an average number of deaths from Diarrhea occurred in months when the Amount of Ozone in the Atmosphere, as indicated by the Day observation, was greater than the average, and vice versa.

<sup>h</sup> The proposition that more than an average number of deaths from Diarrhea occurred in months when the Amount of Ozone in the Atmosphere, as indicated by the Night observation, was greater than the average, and vice versa.

<sup>i</sup> The proposition that more than an average number of deaths from Diarrhea occurred in months when the Velocity of the Wind was less than the average, and vice versa.

[Continued at bottom of page 270.]

**Dysentery.**—This disease is reported to have caused 158 deaths in Michigan in 1878,—the smallest number returned for any of the years 1869–1878. The annual average for the nine years 1869–1877 was 271, which is 113 more than the number returned for 1878. The largest proportion occurred in August, as was the case with diarrhea, and 75.31 per cent. of the deaths from dysentery occurred in the months of July, August, and September; 80.38 per cent. of all the decedents from this disease were under 5 years of age.

An examination of Table XXI. will show that the portion of the State most extensively affected by dysentery in 1878 was the north-eastern division, as was also the case with diarrhea, and the least proportion is shown for the southern-central division.

TABLE XXI.—DIARRHEA AND DYSENTERY.—*Exhibiting for the State and for Eleven Geographical Divisions of the State, during the Year 1878, the Number of Deaths Returned as having occurred from Diarrhea and from Dysentery, and the Per Cent. of Deaths from each Disease to Deaths from All Causes.*

STATE AND GEOGRAPHICAL DIVISIONS. <sup>a</sup>	DIARRHEA, 1878, ACUTE AND CHRONIC.		DYSENTERY, 1878, ACUTE AND CHRONIC.	
	Number of Deaths, 1878.	Per Cent. of Deaths from All Causes, by Geograph- ical Divis- ions.	Number of Deaths, 1878.	Per Cent. of Deaths from All Causes, by Geograph- ical Divis- ions.
STATE.....	173	1.36	158	1.24
Upper-peninsular.....	7	.99	4	.56
Northwestern.....	11	3.57	7	2.27
Northern.....	1	.44	5	2.21
Northeastern.....	8	4.91	6	3.68
Western.....	12	.92	18	1.38
Northern-central.....	4	1.72	6	2.58
Bay and Eastern.....	18	1.09	23	1.39
Central.....	10	.50	31	1.56
Southwestern.....			16	1.51
Southern-central.....	17	.76	8	.36
Southeastern.....	85	2.96	34	1.19

<sup>a</sup> For counties included in each Division, see page 162.

Exhibit 19, page 271, permits of a study of the relations of the principal meteorological conditions to the deaths from rheumatism in Michigan during the year 1878. The number of deaths reported from this disease is very few, only

<sup>1</sup> Exceptions to the proposition that *more* than an average number of deaths from Diarrhea occurred in months when the Monthly Range of Barometer was *greater* than the average, and *vice versa*.

<sup>2</sup> Exceptions to the proposition that *more* than an average number of deaths from Diarrhea occurred in months when the Average Daily Range of Barometer was *greater* than the average, and *vice versa*.

<sup>3</sup> Exceptions to the proposition that *more* than an average number of deaths from Diarrhea occurred in months when the Average Daily Pressure of the Atmosphere was *greater* than the average, and *vice versa*.



55 for the entire State. The greatest mortality occurred in June, and the smallest in March.

EXHIBIT 19.—RHEUMATISM.—*Deaths returned as having occurred in Michigan from Rheumatism, by Months, during the Year 1878, and some coincident Meteorological conditions.*

MONTHS IN ORDER BY NUMBER OF DEATHS FROM RHEU- MATISM,* GREATEST FIRST.	Deaths.		Temperature, Fahr.: Mean of Three Daily Observations,— 7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmosphere, Etc.,— Monthly Averages.				Ozone,— Relative. Maximum = 10.		[Pressure of Atmos- phere. Inches of Mercury. (Reduced to 32° Fahr.)			
	Number.	Per Cent. of Total.	Average Range.		Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one Person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—2 P. M. to 7 A. M.	Range of Barometer.			
			Daily.	From Day to Day,—2 P. M. to 2 P. M.								Monthly, and Year.	Average, Daily.	Average Pressure.	
Year, 1878....	55	100.00	13.63	16.03	48.29	79	3.69	2.31	9.37	3.50	3.42	1.276	.115	29.053	
More than the Average Number of Deaths.	June....	8	14.55	15.80	18.73	64.08	73	5.05	3.16	8.52	3.17	3.00	.677	.100 <sup>d</sup>	29.030
	Dec.....	6	10.91	7.90	9.55	21.29	95 <sup>b</sup>	1.62	1.01	10.67	c 4.55	c 4.74	1.062	.142	29.147
	Feb.....	5	9.09	14.59	15.93	28.07	89 <sup>b</sup>	1.91	1.19	10.49	c 5.00	c 5.33	1.033	.123 <sup>d</sup>	29.026
	April....	5	9.09	14.07	15.77	50.55	69 <sup>b</sup>	3.51	2.19	9.49	c 4.37	c 4.53	.929	.080 <sup>d</sup>	28.875
	July....	5	9.09	14.32	18.10	73.04	68	6.83	4.27	7.41	2.10	1.74	.611	.068	29.085
	Aug. ..	5	9.09	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	.431	.065 <sup>d</sup>	29.010
	Oct.....	5	9.09	16.03	18.58	48.33	76 <sup>b</sup>	3.38	2.11	9.57	2.71	1.97	.684	.132	29.080
Nov.....	5	9.09	11.57	12.60	36.29	87 <sup>b</sup>	2.44	1.53	10.15	3.17	3.14	.904	.134	29.081	
Average.....	4.6	8.33	13.63	16.03	48.29	79	3.69	2.31	9.37	3.50	3.42	.802	.115	29.053	
Less than Av. No. of Deaths.	Sept....	4	7.27	17.43	20.30	63.15	78 <sup>b</sup>	5.18	3.24	8.44	c 2.23	c 1.60	.903	.103 <sup>d</sup>	29.157
	Jan.....	3	5.45	9.00	11.03	29.11	89	1.82	1.14	10.54	3.74	4.48	.709	.146 <sup>d</sup>	29.099
	May....	3	5.45	13.08	15.45	54.57	61	3.68	2.30	9.38	3.97	4.10	.741	.100	29.013
	March..	1	1.82	12.06	16.77	40.90	83	2.80	1.75	9.93	4.68	4.94	.942	.181	29.027

\* Includes Rheumatism of Heart, Inflammatory, Sciatic, Spinal, and Rheumatism.

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>b</sup> Exceptions to the proposition that the air contains *more* than the average amount of vapor of water in months when *more* than the average number of deaths from Rheumatism occurred, and *vice versa*.

<sup>c</sup> Exceptions to the proposition that there was *less* than the average Ozone in the air in months when *more* than the average number of death from Rheumatism occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that the Atmospheric Pressure was *greater* than the average in months when *more* than the average number of deaths from Rheumatism occurred, and *vice versa*.

ar 1878 ranks sixth among the ten years, 1869-1878, number of deaths from scarlet fever; and among the causes of death in Michigan in 1878, scarlet fever in 1878, according to the returns, 429 deaths were in the State, which is 3.36 per cent. of the deaths from

all causes. The order of the years 1869-1878, those first which show the greatest proportion of deaths from scarlet fever, is as follows: 1870, 7.91 per cent.; 1871, 7.15 per cent.; 1872, 4.20 per cent.; 1873, 4.02 per cent.; 1875, 3.53 per cent.; 1874, 3.52 per cent.; 1878, 3.36 per cent.; 1876, 3.17 per cent.; 1877, 3.13 per cent.; 1869, 2.75 per cent. In 1878, the largest proportion occurred in December, and 64.34 per cent. were of persons under 5 years of age.

In Exhibit Y this disease may be studied in its relation to certain coincident meteorological conditions, by months.

**EXHIBIT Y.—SCARLET FEVER.—Deaths returned as having occurred from Scarlet Fever in Michigan during the year 1878, and some coincident Meteorological conditions.**

MONTHS IN ORDER BY NUMBER OF DEATHS FROM SCARLET FEVER, GREATEST FIRST.		Deaths from Scarlet Fever, 1878.		Temperature, —F.; Mean of three daily observations,—7 A. M., 2 P.M., and 9 P.M.			Humidity of Atmosphere, Etc.—Monthly Averages.			Ozone,— Relative. Maximum = 10.		Average Pressure of Atmosphere, (Barometer Reduced to 32° Fahr.)	
		Number.	Per Cent. of Total.	Average Range.		Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one per- son in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled, <sup>a</sup>			
				Daily.	From Day to Day, 2 P. M. to 2 P. M.								
											Day,—7 A. M. to 2 P. M.		Night,—9 P. M. to 7 A. M.
YEAR, 1878.....	429	100.00	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053	
More than Av. No. of Deaths.	December.....	73	17.48	7.90	9.55	21.29	95	1.62	1.01	10.67	4.55	4.74	29.147
	November.....	52	12.12	11.57	12.60	36.29	87	2.44	1.53	10.15	4.17	4.34	29.081
	March.....	41	9.56	12.06	16.77	40.90	83	2.80	1.75	9.93	4.68	4.94	29.027
Average.....	36	8.33	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053	
Less than the Average No. of Deaths.	April.....	35	8.16	14.07	15.77	50.55	69	3.51	c 2.19	9.49	d 4.37	d 4.53	28.875
	February.....	34	7.93	14.59	15.93	b 28.07	89	1.91	c 1.19	10.49	d 5.00	d 5.33	29.025
	January.....	32	7.46	9.00	11.03	b 29.11	89	1.82	c 1.14	10.54	d 3.74	d 4.48	29.089
	May.....	31	7.23	13.08	15.45	54.57	61	3.63	c 2.30	9.38	d 3.97	d 4.10	29.013
	August.....	31	7.23	17.71	19.74	70.15	74	6.06	3.79	7.89	2.82	1.52	29.019
	September.....	27	6.29	17.43	20.30	63.15	78	5.18	3.24	8.44	2.23	1.60	29.157
	October.....	26	6.06	16.03	18.58	48.33	76	3.38	c 2.11	9.57	2.71	1.97	29.080
	June.....	23	5.36	15.80	18.73	64.08	73	5.05	3.16	9.52	3.17	3.00	29.039
July.....	22	5.13	14.32	18.10	73.04	95	6.83	d 2.27	7.41	2.10	1.74	29.000	

\* See foot-note to Exhibit K, page 258.

<sup>b</sup> Exceptions to the proposition that more than in which the temperature was less than the average.

<sup>c</sup> Exceptions to the proposition that more than in which less than the average quantity of vapor.

<sup>d</sup> Exceptions to the proposition that more than in which the Ozone was more abundant than the average.

**Consumption.**—With the exception of the year 1877, consumption was reported to have caused more deaths in Michigan in 1878 than in any previous year. This disease caused 1,641 deaths in this State in 1878, as shown by the returns, which is 12.85 per cent. (more than one-eighth) of the deaths from all causes. The number of deaths from consumption in each of the years 1869–1878 is as follows: 1877, 1,664; 1878, 1,641; 1876, 1,590; 1875, 1,479; 1872, 1,467; 1870, 1,451; 1873, 1,447; 1874, 1,392; 1871, 1,303; 1869, 1,233. In 1878 the largest number occurred in April, although the distribution throughout the months of the year is very uniform.

Exhibit N shows the number of deaths from consumption in each month of the year 1878 when the months are equalized to a uniform length.

Exhibit O shows the number of deaths from consumption in 1878 and some coincident meteorological conditions, by months.

**EXHIBIT N.—CONSUMPTION.**—*By Sex, the Number of Deaths Returned as having occurred in Michigan from Consumption during the Year 1878, by Months Equalized to Uniform length of 30.44 days each; also the Average Number per Month. (Deaths in unknown month excluded.)*

SEX.	TOTAL.	DEATHS FROM CONSUMPTION IN 1878, BY MONTHS OF EQUAL LENGTH.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Monthly Av.
Total....	1,637	89	127	136	176	132	122	141	139	145	141	143	146	136.43
Males....	730	36	59	64	74	61	57	60	63	67	54	68	65	60.83
Females.	907	54	68	72	102	68	65	81	76	78	87	75	81	75.58

\* Excluding 4 deaths from consumption in unknown month, and including 2 males gained and excluding 2 females lost in equalizing. The number of deaths returned from consumption was 1,641,—729 males and 912 females.



EXHIBIT O.—CONSUMPTION.—Deaths Returned as having occurred from Consumption in Michigan during the Year 1878, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM CONSUMPTION, GREATEST FIRST.		Deaths from Con- sumption, 1878.		Temperature,—Fahr.; Mean of Three Daily Observations,— 7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmosphere, Etc.,—Monthly Averages.				Ozone,— Relative. Maximum = 10.		Average Pressure of Atmosphere, (Barometer Reduced to 32° Fahr.)
		Number.	Per Cent. of Total.	Average Range.		Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Va- por in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor inhaled by one per- son in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.	
				Daily.	From Day to Day, 2 P. M. to 2 P. M.								
Year, 1878.....		1,637	100.00	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053
More than the Average Number of Deaths.	April.....	173	10.57	14.07	15.77	50.55	69	3.51	<sup>d</sup> 2.19	9.49	4.37	4.53	28.876
	Dec.....	149	9.10	7.90	9.55	<sup>e</sup> 21.29	95	1.62	<sup>d</sup> 1.01	10.67	4.55	4.74	29.147
	July.....	144	8.80	14.32	18.10	73.04	68	0.83	4.27	7.41	2.10	1.74	29.085
	Oct.....	144	8.80	16.03	18.58	48.33	76	3.38	<sup>d</sup> 2.11	9.57	2.71	1.97	29.080
	Sept.....	143	8.74	17.43	20.30	63.15	78	5.18	3.24	8.44	2.23	1.60	29.157
	Aug.....	142	8.67	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	29.010
	Nov.....	141	8.61	11.57	12.60	<sup>e</sup> 36.29	87	2.44	<sup>d</sup> 1.53	10.15	3.17	3.14	29.081
	March.....	139	8.49	12.06	16.77	<sup>e</sup> 40.90	83	2.80	<sup>d</sup> 1.75	9.93	4.68	4.94	29.027
Average.....		136	8.33	13.63	16.05	48.29	79	3.69	2.31	9.37	3.50	3.42	29.053
Less than Av. No. of Deaths.	May.....	134	8.19	13.08	15.45	<sup>e</sup> 54.57	61	3.68	2.30	9.38	3.97	4.10	29.013
	June.....	120	7.33	15.80	18.73	<sup>e</sup> 64.08	73	5.05	<sup>d</sup> 3.16	8.52	3.17	3.00	29.030
	Feb.....	117	7.15	14.59	15.93	28.07	89	1.91	1.19	10.49	5.00	5.33	29.026
	Jan.....	91	5.56	9.00	11.03	29.11	89	1.82	1.14	10.54	3.74	4.48	29.099

<sup>a</sup> See foot-note to Exhibit K, page 258.

<sup>b</sup> Excluding 4 deaths in unknown month.

<sup>c</sup> Exceptions to the proposition that the Temperature was *higher* than the average in months when *more* than the average number of deaths from Consumption occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that *more* than an average amount of vapor was inhaled in months in which there was *more* than the average number of deaths from Consumption, and *vice versa*.

*Pneumonia*.—The mortality from pneumonia in this State in 1878 was smaller than usual, only 462 deaths from this disease having been returned for the year 1878. This is 3.62 per cent of deaths from all causes. The number returned for 1878 is small for any year since 1871. The annual average number of deaths from pneumonia in this State for the nine years preceding 1878 (1869–1877) is only 79.52 per cent. of the total, and P, the influence of the deaths from pneumonia

EXHIBIT 18.—PNEUMONIA.—Deaths Returned as having Occurred in Michigan from Pneumonia in February and March of each of the Years 1873-1878, the Average for the Six Years ending with 1878, and some coincident Meteorological conditions, at the Agricultural College, near the center of the thickly-settled part of the State.

FEBRUARY AND MARCH OF EACH OF THE YEARS 1873-1878.		Number of Deaths from Pneumonia.	Temperature.—F.; Mean of 3 Daily Observations—7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmosphere, Etc.,— Monthly Averages.		Ozone,— Relative. Maximum = 10.		Rain and Melted Snow, in Inches.	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)		
			Average Range.	Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor, in Cubic Foot of Air. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.	Range of Barometer.		Average Pressure.		
									Daily.			From Day to Day, 2 P. M. to 2 P. M.	Monthly.
Average {	February...	73	15.66	18.27	23.15	88	1.47	4.97	5.91	1.541	1.091	.158	28.968
	March.....	89	14.38	16.88	29.64	85	1.80	4.83	5.96	1.755	1.230	.176	28.920
1873..... {	February...	110	14.61	18.71	219.10	91	1.43	4.21	5.93	.770	.842	.197	28.847
	March.....	80	14.16	16.61	28.30	71	1.52	4.09	5.80	1.730	1.307	.218	28.852
1874..... {	February...	57	12.32	14.07	25.51	89	1.55	5.53	6.10	1.550	1.387	.171	28.928
	March.....	108	13.52	16.45	32.30	83	2.00	5.00	6.00	1.786	1.081	.133	28.895
1875..... {	February...	116	20.14	21.57	8.35	94	.73	5.78	6.57	2.198	1.231	.206	28.875
	March.....	128	15.48	16.68	26.20	87	1.63	5.70	6.19	1.020	1.231	.163	28.844
1876..... {	February...	71	12.76	16.66	27.38	84	1.59	5.76	7.27	3.040	1.033	.176	29.063
	March.....	107	12.84	14.39	30.55	95	1.78	6.06	7.00	4.840	1.812	.223	28.929
1877..... {	February...	56	14.79	17.71	32.31	85	1.85	4.54	4.14	.000	1.007	.122	29.124
	March.....	64	15.29	17.29	24.51	91	1.53	5.29	6.06	.560	1.119	.151	28.981
1878..... {	February...	37	14.59	15.93	28.07	89	1.91	5.00	5.33	2.740	1.033	.123	29.026
	March.....	59	12.06	16.77	40.90	83	2.80	4.68	4.94	.312	.942	.181	29.027

<sup>a</sup> See foot note to Exhibit K, page 258.

<sup>b</sup> Four out of seven cases in which the Average Daily Range of Temperature and the deaths were both less than the average.

<sup>c</sup> Two out of seven cases in which the Average Daily Range of Temperature and the deaths were both less than the average.

<sup>d</sup> Four out of seven cases in which the Average Range of Temperature "from day to day" and the deaths were both less than the average.

<sup>e</sup> Two out of seven cases in which the Average Range of Temperature "from day to day" and the deaths were both less than the average.

<sup>f</sup> Six out of seven cases in which the Average Temperature was higher and the deaths less than the average, or vice versa.

<sup>g</sup> Two out of seven cases in which the Average Temperature was higher and the deaths less than the average, or vice versa.

<sup>h</sup> Five out of seven cases in which the Relative Humidity and the deaths were both less than the average, or both greater than the average.

<sup>i</sup> Four out of seven cases in which the Relative Humidity and the deaths were both less than the average, or both greater than the average.

<sup>j</sup> In which the Absolute Humidity and the deaths were both less than the

which the Absolute Humidity and the deaths were both greater than

the Day Ozone and the deaths were both less than the average.

the Day Ozone and the deaths were both less than the average,

[at bottom of page 276.]

**EXHIBIT P.—PNEUMONIA.**—Deaths returned as having occurred from Pneumonia, in Michigan during the Year 1878, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUMBER OF DEATHS FROM PNEUMONIA, GREATEST FIRST.		Deaths from Pneumonia, 1878.		Temperature,—Fahr.; Mean of Three Daily Observations,—7 A. M., 2 P. M., and 9 P. M.		Humidity of Atmosphere, Etc.,—Monthly Averages.				Ozone,—Relative. Maximum = 10.		Average Pressure of Atmosphere. (Barometer Reduced to 32° Fahr.)	
		Number.	Per Cent. of Total.	Average Range.		Average.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>			
				Daily.	From Day to Day, 2 P. M. to 2 P. M.								
											Day,—7 A. M. to 2 P. M.		Night,—9 P. M. to 7 A. M.
Year, 1878 .....	462	100.00	13.63	16.03	48.29	79	3.69	2.31	9.37	3.50	3.42	29.033	
More than Av. No. of Deaths.	December .....	65	14.07	7.90	9.55	21.29	93	1.62	1.01	10.67	4.55	4.74	29.147
	March .....	59	12.77	12.06	16.77	40.90	83	2.80	1.75	9.93	4.68	4.94	• 29.027
	April .....	54	11.69	14.07	15.77	b 50.55	69	3.51	2.19	9.49	4.37	4.53	• 29.376
	November .....	53	11.47	11.57	12.60	36.29	87	2.44	1.53	10.15	d 3.17	d 3.14	29.081
Average .....	39	3.33	13.63	16.06	48.29	79	3.69	2.31	9.37	3.50	3.42	29.063	
Less than the Average No. of Deaths.	February .....	37	8.01	14.59	15.93	b 28.07	89	1.91	c 1.19	16.49	d 5.00	d 5.33	29.028
	May .....	37	8.01	13.08	15.45	51.57	61	3.68	c 2.30	9.38	d 3.97	d 4.10	29.013
	January .....	36	7.79	9.00	11.03	b 29.11	89	1.82	c 1.14	10.54	d 3.74	d 4.48	• 29.090
	October .....	35	7.58	16.03	18.58	49.33	76	3.38	c 2.11	9.57	2.71	1.97	• 29.080
	June .....	30	6.49	15.80	18.73	64.08	73	5.03	3.16	8.52	3.17	3.00	29.030
	September .....	22	4.76	17.43	20.80	63.15	78	5.18	3.24	8.44	2.23	1.60	• 29.157
	August .....	19	4.11	17.71	19.74	70.15	74	6.06	3.79	7.89	2.32	1.52	29.010
July .....	15	3.25	14.32	18.10	73.04	68	6.83	4.27	7.41	2.10	1.74	• 29.085	

<sup>a</sup> See foot-note to Exhibit K, page 253.

<sup>b</sup> Exceptions to the proposition that the Temperature was *greater* than the average in months when *less* than the average number of deaths from Pneumonia occurred, and *vice versa*.

<sup>c</sup> Exceptions to the proposition that *more* than an average amount of vapor was inhaled in months when *less* than the average number of deaths from Pneumonia occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that the Ozone was *more* than the average in months when *more* than the average number of deaths from Pneumonia occurred, and *vice versa*.

<sup>e</sup> Exceptions to the proposition that the Atmospheric Pressure was *greater* than the average in months when *more* than the average number of deaths from Pneumonia occurred, and *vice versa*.

<sup>f</sup> Four out of seven cases in which the Night Ozone and the deaths were both *less* than the average, or both *greater* than the average.

<sup>g</sup> Six out of seven cases in which the Night Ozone and the deaths were both *less* than the average, or both *greater* than the average.

<sup>h</sup> Two out of seven cases in which the Pressure of the Atmosphere and the deaths were both *less* than the average.

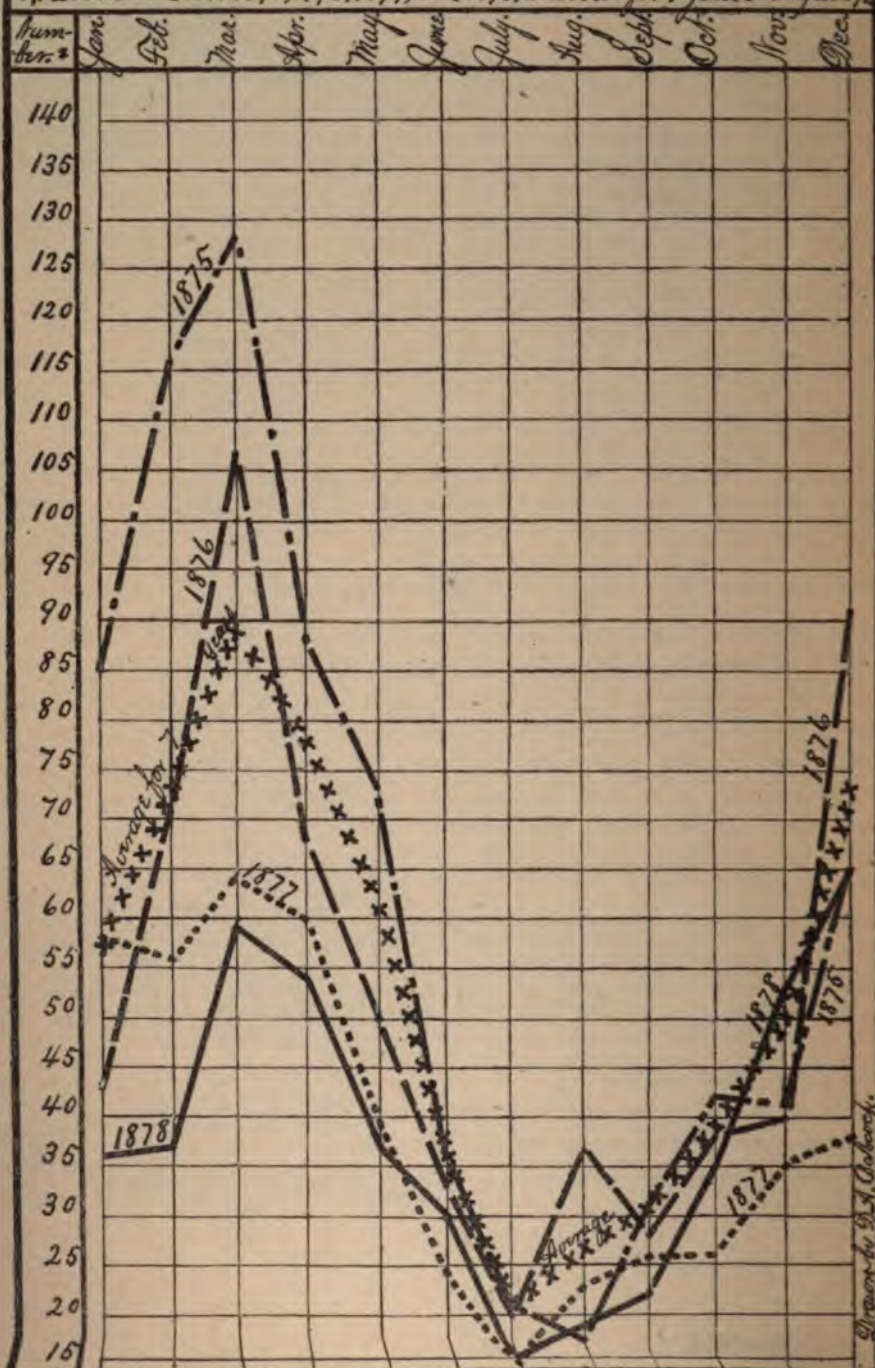
<sup>i</sup> Three out of seven cases in which the Pressure of the Atmosphere and the deaths were both *less* than the average, or both *greater* than the average.





# Diagram No. 9.

Deaths Returned as having occurred in Michigan from  
Pneumonia in 1875, 1876, 1877, and 1878, and Av. for 7 years ending with 1878.



\* Scale = 19 to the inch.

Designed by Henry B. Baker.

Printed by J. H. G. G. G. G.

Exhibit 17 shows, by months, the number of deaths returned as having been caused by pneumonia in this State during each of the years 1872-1878, and the average for the seven years ending with 1878. The number returned for 1878 is not only much less than the average but is less than the number returned for any of the other years shown in the exhibit.

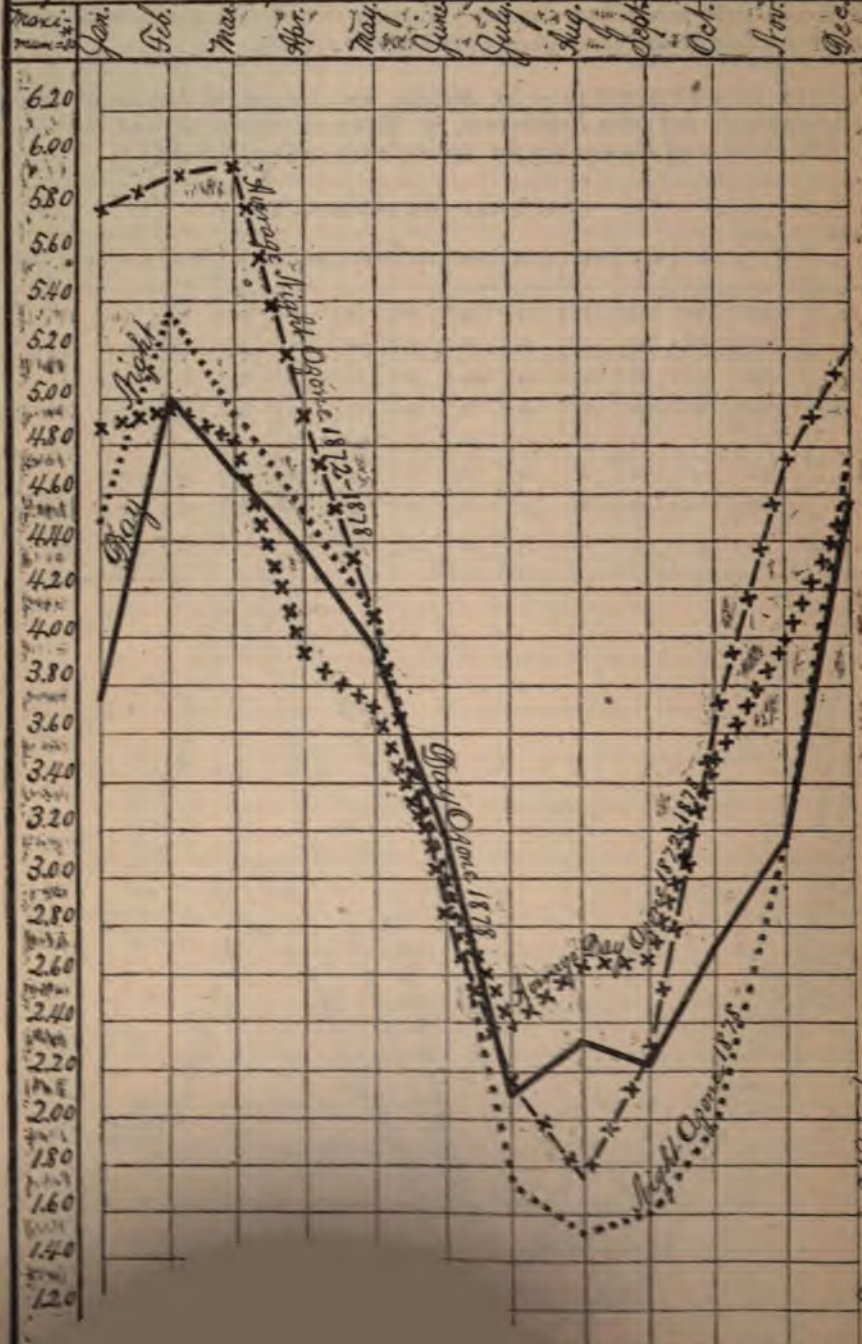
**EXHIBIT 17.—PNEUMONIA.**—*By Months, the Number of Deaths Returned as having occurred from Pneumonia, in Michigan, during each of the Years 1872-1878, and the average for Seven Years ending with 1878.*

YEARS.	TOTALS.	DEATHS FROM PNEUMONIA, 1872-1878.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
1872.....	641	46	64	75	79	53	28	26	31	29	56	63	89	2
1873.....	706	84	110	80	58	65	55	20	29	34	37	65	68	1
1874.....	800	49	57	108	141	103	46	29	32	48	39	50	93	2
1875.....	745	85	116	128	88	73	36	21	17	31	42	41	65	2
1876.....	627	43	71	107	68	50	33	20	37	28	38	40	91	1
1877.....	465	58	56	64	60	39	24	14	23	26	26	35	38	2
1878.....	462	36	37	59	54	37	30	15	19	22	35	53	65	-----
Av. for 7 yrs	635	57	73	80	78	61	36	21	27	31	39	50	73	1



# Diagram No. 10.

Relative Amount of Ozone in Air from 9 P.M. to 7 A.M. - Night Observations - and from 7 A.M. to 2 P.M. - Day Observations - in 1878, and the Average for 7 Years ending with 1878, at the Agricultural College, near Lansing, Michigan.



By Henry C. Baker.

EXHIBIT 20—*Relative Amount of Ozone in Air from 9 P. M. to 7 A. M.,—Night Observations,—by Months, during the Years 1872-1878, and the Average for 7 years ending with 1878; also, the Average for 7 years ending with 1878, from 7 A. M. to 2 P. M.,—Day Observations, at the Agricultural College, near Lansing, Michigan.*

YEARS.		Annual Aver- age.	OZONE OBSERVATIONS, BY MONTHS.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Day	1872....	2.92	4.50	4.00	3.00	2.63	2.14	1.91	.88	.98	1.40	1.93	4.60	5.81
	1873....	4.02	5.06	4.21	4.09	3.76	4.58	3.26	3.59	3.55	2.30	4.52	4.30	4.97
	1874....	4.10	5.10	5.53	5.00	5.70	5.80	3.50	1.80	2.80	2.90	3.32	3.80	4.00
	1875....	4.53	5.62	5.78	5.70	3.73	3.19	3.96	3.52	3.50	4.30	5.30	4.90	5.00
	1876....	3.68	5.32	5.76	6.06	3.70	3.10	1.87	2.16	1.97	2.00	3.45	3.57	4.57
	1877....	3.66	4.87	4.54	5.29	3.70	3.29	3.17	2.71	3.42	2.93	3.20	3.60	3.17
	1878....	3.50	3.74	5.00	4.68	4.37	3.97	3.17	2.10	2.32	2.23	2.71	3.17	4.55
Av. for 7 years..		3.76	4.37	4.97	4.83	3.94	3.72	2.98	2.39	2.65	2.67	3.49	3.99	4.58
Night	1872....	4.24	5.44	6.00	5.71	5.30	3.84	3.23	2.28	.99	1.86	3.18	6.17	6.84
	1873....	4.63	6.32	5.93	5.80	4.27	4.59	2.66	3.06	2.65	4.27	4.69	5.47	5.89
	1874....	3.99	6.39	6.10	6.00	6.60	4.90	2.34	1.50	1.10	1.20	3.01	4.50	4.20
	1875....	5.04	5.93	6.57	6.19	3.96	4.03	3.66	3.22	3.70	3.68	6.20	6.60	6.70
	1876....	4.11	6.90	7.27	7.00	5.53	4.13	2.27	1.53	1.26	1.73	3.48	3.33	4.81
	1877....	3.33	5.03	4.14	6.06	4.27	2.94	2.90	1.77	1.03	1.53	3.19	3.73	3.37
	1878....	3.42	4.48	5.33	4.94	4.53	4.10	3.00	1.74	1.52	1.60	1.97	3.14	4.74
Av. for 7 years..		4.11	5.73	5.91	5.96	4.93	4.08	2.87	2.16	1.75	2.27	3.67	4.71	5.22

## CORRELATION OF CONSUMPTION AND PNEUMONIA.

In Tables XXII. and XXIII., consumption and pneumonia are studied together, by sex,—in the former by months, in the latter by periods of age. In Table XXII. it may be seen that in eleven months of the year there was an excess of deaths of females from consumption and of males from pneumonia. Opposite conditions seem often to exist in connection with these two diseases, as may be seen by studying the tables and exhibits concerning them in this Report.

TABLE XXII.—CORRELATION OF CONSUMPTION AND PNEUMONIA.—Deaths from Consumption and Pneumonia Returned as having occurred in Michigan during the Year 1878, by Months, Exhibiting the Total Number, Number of each Sex, Per Cent. of Total, and Excess of each Sex.

CONSUMPTION, 1878.										PNEUMONIA, 1878.											
Number.					Per Cent. of each Sex to Total of both Sexes.					Number.					Per Cent. of each Sex to Total of both Sexes.						
Males.		Fe- males.		Total.	Per Cent. of deaths in each Month to Total for Year.	Excess.		Per Cent. of deaths in each Month to Total for Year.		Males.		Fe- males.		Total.	Per Cent. of deaths in each Month to Total for Year.		Males.		Fe- males.		Excess.
						Males.	Fe- males.								Males.	Fe- males.					
729	912	1,641	100.00	44.42	55.58	11.16	100.00	275	187	462	59.92	40.48	19.01	69.44	30.56	38.88					
36	55	91	5.55	39.56	60.44	c	20.88	25	11	36	7.79	69.44	30.56	38.88							
54	63	117	7.13	40.15	59.85	c	7.79	21	16	37	8.01	56.76	43.24	13.52							
65	74	139	8.47	46.76	53.24	c	6.48	36	23	59	12.77	61.02	38.98	22.01							
73	100	173	10.54	42.20	57.80	c	15.69	30	24	54	11.69	55.56	44.44	11.12							
65	69	134	8.17	48.51	51.49	c	2.98	24	13	37	8.01	64.89	35.14	29.72							
56	64	120	7.31	46.67	53.33	c	6.66	18	12	30	6.49	60.00	40.00	20.00							
61	83	144	8.78	42.36	57.64	c	15.28	10	5	15	3.25	66.67	33.33	33.34							
64	78	142	8.65	45.07	54.93	c	9.86	7	12	19	4.11	36.84	63.16	26.32							
68	77	145	8.71	46.15	53.85	c	7.70	14	8	22	4.76	63.64	36.36	27.28							
55	89	144	8.78	38.19	61.81	c	23.62	20	15	35	7.58	57.14	42.86	14.28							
67	74	141	8.59	47.52	52.48	c	4.96	31	22	53	11.47	58.49	41.51	16.98							
65	83	148	9.08	44.30	55.70	c	11.40	39	26	65	14.07	60.00	40.00	20.00							
1	3	4	.24	25.00	75.00	50.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					
60.67	75.75	136.42	8.33	44.62	55.38	.....	.....	22.92	15.58	38.50	8.33	59.20	40.80	.....	.....	.....					

a In unknown month.  
 b Average number of deaths from Consumption, and more than the average number from Pneumonia, and vice versa.  
 c Twelve months in which there was an excess of deaths of one sex from consumption and of the opposite sex from pneumonia.



III.—CORRELATION OF CONSUMPTION AND PNEUMONIA.—Exhibiting the Number and Per Cent. of Deaths, the difference between the Sexes, and the Per Cent. of Total Deaths at each Period of Age from Consumption in Michigan, during the Year 1878.

PERIODS OF YEARS, 1878	CONSUMPTION, 1878.										PNEUMONIA, 1878.									
	NUMBER.					PER CENT. OF THE SEXES.					NUMBER.					PER CENT. OF THE SEXES.				
	Males.	Fe-males.	Total.	Per Ct. of Deaths at each Age to All Ages.	Males.	Fe-males.	Excess.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Per Ct. of Deaths at each Age to All Ages.	Males.	Fe-males.	Excess.	Males.	Fe-males.	Total.
All Ages, 1878.....	729	912	1,641	100.00	41.42	55.58	11.16	275	187	462	59.52	40.48	100.00	59.52	40.48	19.04	.....	.....	.....	.....
Under 5.....	a 37	38	b 75	b 4.57	49.33	50.67	1.34	a 118	84	b 202	58.42	41.58	b 43.72	58.42	41.58	16.84	.....	.....	.....	.....
5 to 10.....	8	8	16	.97	50.00	50.00	.....	9	3	12	2.60	75.00	2.60	75.00	25.00	50.00	.....	.....	.....	.....
10 to 15.....	8	33	41	2.50	19.51	80.49	60.98	4	3	7	1.52	57.14	1.52	57.14	42.86	14.28	.....	.....	.....	.....
15 to 20.....	33	106	b 139	b 8.47	23.74	76.26	52.52	10	4	b 14	71.43	28.57	b 3.03	71.43	28.57	42.86	.....	.....	.....	.....
20 to 25.....	a 88	143	b 231	b 14.08	38.10	61.90	23.80	a 10	6	b 16	62.50	37.50	b 3.46	62.50	37.50	25.00	.....	.....	.....	.....
25 to 30.....	a 78	138	b 216	b 13.16	36.11	63.89	27.78	a 10	1	b 11	90.91	9.09	b 2.38	90.91	9.09	81.82	.....	.....	.....	.....
30 to 35.....	a 58	98	b 156	b 9.51	37.18	62.82	25.64	a 6	6	b 12	50.00	50.00	b 2.60	50.00	50.00	.....	.....	.....	.....	.....
35 to 40.....	a 60	71	b 131	b 7.93	45.80	54.20	8.40	a 8	3	b 11	72.73	27.27	b 2.38	72.73	27.27	45.46	.....	.....	.....	.....
40 to 45.....	a 54	53	b 107	b 6.52	50.47	49.53	.91	a 4	11	b 15	26.67	73.33	b 8.25	26.67	73.33	46.66	.....	.....	.....	.....
45 to 50.....	a 50	53	b 103	b 6.28	45.51	51.46	5.95	a 12	6	b 18	66.67	33.33	b 3.90	66.67	33.33	33.34	.....	.....	.....	.....
50 to 55.....	a 45	40	85	5.18	52.94	47.06	5.88	a 13	9	b 22	59.09	40.91	b 4.76	59.09	40.91	18.18	e	.....	.....	.....
55 to 60.....	a 53	34	87	5.20	60.92	39.08	21.84	a 13	12	b 25	52.00	48.00	b 5.41	52.00	48.00	4.00	e	.....	.....	.....
60 to 65.....	a 50	20	70	4.26	71.43	28.57	42.86	13	9	23	54.1	45.9	b 6.71	54.1	45.9	8.2	.....	.....	.....	.....
65 to 70.....	a 39	24	b 63	b 3.84	61.90	38.10	23.80	a 20	11	b 31	64.52	35.48	b 6.71	64.52	35.48	29.04	.....	.....	.....	.....
70 to 75.....	33	17	50	3.05	66.00	34.00	32.00	e	7	6	13	53.85	46.15	b 2.81	53.85	46.15	7.70	e	.....	.....
75 to 80.....	20	11	31	1.89	64.62	35.38	29.04	4	7	11	36.36	63.64	b 2.81	36.36	63.64	27.28	.....	.....	.....	.....
80 and over.....	9	11	20	1.22	45.00	55.00	10.00	8	5	13	61.54	38.46	b 2.81	61.54	38.46	23.08	.....	.....	.....	.....
Unknown.....	6	14	20	1.22	30.00	70.00	40.00	3	1	4	75.00	25.00	.87	75.00	25.00	50.00	.....	.....	.....	.....
Average.....	42.53	52.82	95.35	5.81	48.32	51.68	.....	16.00	10.94	26.94	60.17	39.83	5.83	60.17	39.83	.....	.....	.....	.....	.....

a More than the average number of deaths of males from Consumption, and less than the average number of deaths of males from Pneumonia, and vice versa.  
 b More than an average number and per cent. of deaths from Consumption, and less than an average number and per cent. of deaths from Pneumonia, and vice versa.  
 c More than an average proportion of males from Consumption and less than an average proportion of males from Pneumonia, and vice versa.  
 d Of 17 periods of 5 years each, unknown ages excluded.

TABLE XXIV.—*Exhibiting, for the State and Eleven Geographical Divisions in 1878, by Sex, the Number of Deaths Returned as having occurred from All Causes, from Consumption, Pneumonia, Typhoid Fever, Intermittent Fever, and Diarrhea; also, the Per Cent. of Deaths from Consumption, Pneumonia, Typhoid Fever, Intermittent Fever, and Diarrhea, to Deaths from All Causes.*

STATE AND GEOGRAPHICAL DIVISIONS. <sup>a</sup>	SEX.	All Causes, 1878.	CONSUMPTION.		PNEUMONIA.		TYPHOID FEVER.		INTERMIT- TENT FEVER.		DIARRHEA.	
			Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.
STATE..... <sup>b</sup>	Total....	12,766	1,641	12.85	462	3.62	329	2.58	47	.37	173	1.36
	Males....	6,632	729	10.99	275	4.15	176	2.65	24	.36	91	1.37
	Females..	6,082	912	15.00	187	3.07	153	2.52	23	.33	82	1.35
	Unk'n....	52	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Upper-peninsular.....	Total....	709	55	7.76	25	3.53	24	3.39	-----	-----	7	.99
	Males....	414	33	7.97	16	3.86	17	4.11	-----	-----	3	.72
	Females..	291	22	7.56	9	3.09	7	2.41	-----	-----	4	1.37
	Unk'n....	4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
North-western.....	Total....	308	39	12.66	8	2.60	10	3.25	-----	-----	11	3.57
	Males....	159	17	10.69	4	2.52	2	1.26	-----	-----	4	2.53
	Females..	148	22	14.86	4	2.70	8	5.41	-----	-----	7	4.73
	Unk'n....	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Northern.....	Total....	226	16	7.08	7	3.10	3	1.33	1	.44	1	.41
	Males....	118	11	9.32	3	2.54	1	.85	-----	-----	1	.85
	Females..	107	5	4.67	4	3.74	2	1.87	1	.93	-----	-----
	Unk'n....	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
North-eastern.....	Total....	163	22	13.50	5	3.07	4	2.45	-----	-----	8	4.91
	Males....	93	9	9.68	3	3.23	4	4.30	-----	-----	6	6.45
	Females..	69	13	18.84	2	2.90	-----	-----	-----	-----	2	2.90
	Unk'n....	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Western.....	Total....	1,306	180	13.78	33	2.53	27	2.07	4	.31	12	.92
	Males....	656	76	11.59	19	2.90	14	2.13	1	.15	9	1.37
	Females..	645	104	16.12	14	2.17	13	2.02	3	.47	3	.47
	Unk'n....	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Northern-central....	Total....	233	13	5.58	12	5.15	9	3.86	1	.43	4	1.72
	Males....	119	6	5.04	8	6.72	3	2.52	1	.84	-----	-----
	Females..	113	7	6.19	4	3.54	6	5.31	-----	-----	4	3.54
	Unk'n....	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

<sup>a</sup> For counties included in each Division, see page 162.

<sup>b</sup> For counties and townships from which no returns of deaths for 1878 were received, see Exhibit II, page 136; for those in which no deaths occurred, see Exhibit I, page 150.

TABLE XXIV.—CONTINUED.

GEOGRAPHICAL DIVISIONS.	SEX.	All Causes, 1878.	CONSUMPTION.		PNEUMONIA.		TYPHOID FEVER.		INTERMITTENT FEVER.		DIARRHEA.	
			Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.
Bay and Eastern.....	Total.....	1,656	217	13.10	59	3.56	29	1.75	9	.54	18	1.00
	Males.....	876	91	10.39	36	4.11	14	1.60	6	.68	13	1.48
	Females.....	778	126	16.24	23	2.96	15	1.93	3	.39	5	.64
	Unk'n.....	4	—	—	—	—	—	—	—	—	—	—
Central.....	Total.....	1,990	271	12.82	79	3.97	62	3.12	11	.55	10	.50
	Males.....	970	105	10.92	49	5.06	32	3.30	3	.31	6	.62
	Females.....	1,017	166	16.32	30	2.95	30	2.95	8	.79	4	.39
	Unk'n.....	3	—	—	—	—	—	—	—	—	—	—
South-western.....	Total.....	1,062	123	11.58	49	4.61	30	2.82	4	.38	—	—
	Males.....	551	58	10.53	28	5.08	19	3.45	3	.54	—	—
	Females.....	507	65	12.82	21	4.14	11	2.17	1	.20	—	—
	Unk'n.....	4	—	—	—	—	—	—	—	—	—	—
Southern-central.....	Total.....	2,241	316	14.09	84	3.74	74	3.30	6	.27	17	.76
	Males.....	1,160	132	11.38	51	4.40	36	3.10	4	.34	7	.60
	Females.....	1,077	184	17.08	33	3.06	38	3.53	2	.19	10	.93
	Unk'n.....	7	—	—	—	—	—	—	—	—	—	—
South-eastern.....	Total.....	2,869	389	13.56	101	3.52	57	1.99	11	.38	85	2.96
	Males.....	1,516	191	12.60	58	3.83	34	2.24	6	.40	42	2.77
	Females.....	1,332	198	14.86	43	3.23	23	1.73	5	.38	43	3.28
	Unk'n.....	21	—	—	—	—	—	—	—	—	—	—

\* For counties included in each Division, see page 162.



TABLE XXV.—CONTINUED.

COUNTIES.	All Causes, 1878.	CONSUMPTION.		PNEUMONIA.		TYPHOID FEVER.		INT'M'T FEVER.		DIARRHEA.	
		Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.
Livingston..	158	26	16.67	12	7.89	2	1.28	1	.64	—	—
Mackinac..*	15	6	40.00	—	—	—	—	—	—	—	—
Macomb.....	279	41	14.70	8	2.87	7	2.51	1	.30	11	3.94
Manistee.....	84	11	13.10	4	4.76	1	1.19	—	—	5	5.95
Manitou.....	6	1	16.67	—	—	—	—	—	—	—	—
Marquette....	227	15	6.61	6	2.64	4	1.76	—	—	3	1.32
Mason.....	61	14	22.95	1	1.64	1	1.64	1	1.64	1	1.64
Mecosta.....	73	4	5.48	5	6.85	3	4.11	—	—	—	—
Menominee..*	9	—	—	—	—	1	11.11	—	—	—	—
Midland.....	52	6	11.54	2	3.85	1	1.92	—	—	—	—
Missaukee....	21	2	9.52	—	—	1	4.76	—	—	4	19.05
Monroe.....	310	25	8.06	10	3.23	7	2.26	3	.97	4	1.29
Montcalm....	198	32	16.16	2	1.01	9	4.55	2	1.01	4	2.02
Muskegon..*	171	22	12.87	3	1.75	3	1.75	—	—	—	—
Newaygo.....	78	10	12.82	5	6.41	4	5.13	—	—	—	—
Oakland.....	331	39	11.78	16	4.83	12	3.63	—	—	—	—
Oceana.....	76	19	25.00	2	2.63	—	—	1	1.32	—	—
Ogemaw.....	6	—	—	—	—	—	—	—	—	—	—
Ontonagon....	33	3	9.09	3	9.09	—	—	—	—	—	—
Osceola.....	89	7	7.87	—	—	3	3.37	—	—	1	1.12
Otsego.....	2	—	—	—	—	—	—	—	—	—	—
Ottawa.....	249	23	11.24	8	3.21	5	2.01	1	.40	4	1.61
Presque Isle..	26	3	11.54	—	—	—	—	—	—	—	—
Roscommon....	6	—	—	—	—	—	—	—	—	—	—
Saginaw.....	524	81	15.46	18	3.44	9	1.72	2	.38	5	.95
Sanilac.....	135	18	13.33	3	2.22	1	.74	1	.74	2	1.48
Schoolcraft..	4	—	—	—	—	—	—	—	—	—	—
Shiawassee..*	137	20	14.60	13	9.49	5	3.65	1	.73	—	—
St. Clair.....*	319	33	10.34	11	3.45	4	1.25	—	—	3	.94
St. Joseph....	204	23	12.25	9	4.41	8	3.92	2	.98	1	.49
Tuscola.....	150	24	16.00	6	4.00	5	2.33	—	—	3	2.00
Van Buren....	248	39	15.73	10	4.03	8	3.23	2	.81	—	—
Washtenaw....	330	43	13.64	12	3.64	10	3.03	—	—	2	.61
Wayne.....*	1,949	284	14.57	67	3.44	31	1.59	7	.36	70	3.59
Wexford.....	86	8	9.30	2	2.33	—	—	—	—	1	1.16

\* Except townships not represented by returns of deaths in 1878, see Exhibit II, page 136.

TABLE XXVI.—*Exhibiting, for the State and Eleven Geographical Divisions of Michigan, by Sex, the Number of Deaths Returned as having occurred at All Ages, from Old Age, of All Aged 70 and Over, and of All Aged Under 5; also the Per Cent. of Deaths from Old Age, of All Aged 70 and Over, and of All Aged Under 5, to Deaths at All Ages for the Year 1878.*

STATE AND GEOGRAPHICAL DIVISIONS. <sup>a</sup>	SEX.	Deaths at All Ages, 1878.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
			Number of Deaths.	Per Cent. to Deaths at All Ages, by Geo- graphical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geo- graphical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geo- graphical Divisions.
STATE..... <sup>b</sup>	Total .....	12,766	579	4.54	1,373	10.76	5,007	39.22
	Males .....	6,633	281	4.24	750	11.31	2,698	40.68
	Females .....	6,082	298	4.90	623	10.24	2,260	37.16
	Unknown.....	52	.....	.....	.....	.....	49	94.23
Upper-peninsular.....	Total .....	709	10	1.41	16	2.26	417	58.82
	Males.....	414	5	1.21	6	1.45	235	56.76
	Females.....	291	5	1.72	10	3.44	178	61.17
	Unknown.....	4	.....	.....	.....	.....	4	100.00
North-western.....	Total .....	303	9	2.92	20	6.49	142	46.10
	Males.....	159	3	1.89	7	4.40	76	47.30
	Females.....	148	6	4.06	13	8.78	65	43.92
	Unknown.....	1	.....	.....	.....	.....	1	100.00
Northern.....	Total .....	226	5	2.21	12	5.31	113	50.00
	Males.....	118	4	3.39	8	6.78	62	52.54
	Females.....	107	1	.93	4	3.74	50	46.73
	Unknown.....	1	.....	.....	.....	.....	1	100.00
North-eastern.....	Total .....	163	.....	.....	3	1.84	85	52.15
	Males.....	93	.....	.....	.....	.....	49	52.69
	Females.....	69	.....	.....	3	4.33	35	50.72
	Unknown.....	1	.....	.....	.....	.....	1	100.00
Western.....	Total .....	1,306	49	3.75	106	8.12	551	42.19
	Males.....	656	23	3.51	66	10.06	286	43.60
	Females.....	645	26	4.03	40	6.20	260	40.31
	Unknown.....	5	.....	.....	.....	.....	5	100.00

<sup>a</sup> For counties included in each Division, see page 162.

<sup>b</sup> For counties and townships from which no returns of deaths in 1878 were received, see Exhibit II, page 136; for those in which no deaths occurred, see Exhibit I, page 150.

TABLE XXVI.—CONTINUED.

GEOGRAPHICAL DIVISIONS.*	SEX.	Deaths at All Ages, 1878.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
			Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.
Northern-central	Total.....	233	6	2.58	8	3.43	115	49.36
	Males.....	119	2	1.68	3	2.52	61	51.26
	Females.....	113	4	3.54	5	4.42	53	46.90
	Unknown.....	1					1	100.00
Bay and Eastern	Total.....	1,656	70	4.23	123	7.43	742	44.81
	Males.....	876	33	3.77	70	7.99	408	46.58
	Females.....	776	37	4.77	53	6.83	331	42.65
	Unknown.....	4					3	75.00
Central	Total.....	1,990	84	4.22	227	11.41	732	36.78
	Males.....	970	34	3.51	124	12.78	356	39.79
	Females.....	1,017	50	4.92	103	10.13	343	33.73
	Unknown.....	3					3	100.00
South-western	Total.....	1,062	41	3.86	133	12.52	367	34.56
	Males.....	551	23	4.17	76	13.79	191	34.66
	Females.....	507	18	3.55	57	11.24	172	33.93
	Unknown.....	4					4	100.00
Southern-central	Total.....	2,244	148	6.60	467	18.14	573	25.53
	Males.....	1,160	70	6.03	214	18.45	317	27.32
	Females.....	1,077	78	7.24	193	17.92	249	23.12
	Unknown.....	7					7	100.00
South-eastern	Total.....	2,869	157	5.47	318	11.08	1,170	40.78
	Males.....	1,516	84	5.54	176	11.61	627	41.36
	Females.....	1,332	73	5.48	142	10.66	524	39.34
	Unknown.....	21					19	90.48

\* For counties included in each Division, see page 162.



TABLE XXVII.—*Exhibiting, for the State and Counties of Michigan, the Number of Deaths Returned as having occurred at All Ages, from Old Age, of All Aged 70 and Over, and of All Aged Under 5, in 1878; also the Per Cent. of Deaths from Old Age, of All Aged 70 and Over, and of All Aged under 5 to Deaths at All Ages.*

STATE AND COUNTIES.	ALL AGES.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
	Number of Deaths.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.
STATE .....	12,766	579	4.54	1,373	10.76	5,007	39.22
Alcona.....	19					8	42.11
Allegan.....	278	13	4.68	31	11.15	96	34.53
Alpena.....	60			1	1.67	38	63.33
Antrim..... <sup>a</sup>	33			3	9.09	10	30.30
Baraga.....	23					14	60.87
Barry.....	139	5	3.60	14	10.07	49	35.25
Bay.....	247	8	3.24	11	4.45	135	54.66
Benzie.....	13			1	7.69	6	46.15
Berrien.....	313	8	2.56	55	11.18	115	36.74
Branch.....	204	4	1.96	33	16.18	47	23.04
Calhoun.....	260	19	7.31	48	18.46	59	22.69
Cass.....	223	10	4.48	29	13.00	83	37.22
Charlevoix.....	32	2	6.25	2	6.25	14	43.75
Cheboygan.....	71	1	1.41	4	5.63	34	47.89
Chippewa..... <sup>a</sup>	41	4	9.76	3	7.32	20	48.78
Clare.....	20					13	65.00
Clinton.....	247	10	4.05	30	12.15	93	37.65
Crawford.....	4					4	100.00
Delta.....	42					16	38.10
Eaton.....	273	9	3.30	25	9.23	94	34.43
Emmet.....	66	2	3.03	3	4.55	38	57.58
Genesee.....	308	24	7.84	45	14.71	105	34.31
Gladwin.....	7			1	14.29	3	42.86
Grand Traverse.....	49	4	8.16	5	10.20	18	36.73
Gratiot.....	111	3	2.70	5	4.50	54	48.65
Hillsdale.....	288	18	6.25	48	16.67	65	22.57
Houghton.....	263	1	.38	3	1.14	170	64.64
Huron.....	101	4	3.96	9	8.91	47	46.53
Ingham.....	193	8	4.15	18	9.32	78	40.41
Ironia.....	230	5	2.17	24	10.43	85	36.96
Iosco.....	52			1	1.92	28	53.85
Isabella..... <sup>a</sup>	75	1	1.33	1	1.33	41	54.67
Isle Royal..... <sup>b</sup>							
Jackson.....	347	16		50	14.44	118	31.12
Kalamazoo.....	281	19		45	11.74	80	21.35
Kalkaska.....	18					11	61.11
Kent.....	560	23		45	8.04	145	25.90
Keweenaw.....	52						
Lake.....	22						
Lapeer.....	180						

<sup>a</sup> Except townships not represented.

<sup>b</sup> No returns from county clerk to State.

TABLE XXVII.—CONTINUED.

COUNTIES.	ALL AGES.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
	Number of Deaths.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.
Leelanaw.....	49	1	2.04	8	16.33	15	30.61
Lenawee.....	330	26	7.88	76	23.03	88	26.67
Livingston.....	156	7	4.49	29	18.59	44	28.21
Mackinac.....	15	1	6.67	1	6.67	2	13.33
Macomb.....	279	19	6.81	33	19.00	82	29.39
Manistee.....	84	1	1.19	4	4.70	49	58.33
Manitou.....	6	2	33.33	1	16.67	3	50.00
Marquette.....	227	1	.44	3	1.32	136	59.91
Mason.....	61	1	1.64	2	3.28	23	37.70
Mecosta.....	73	4	5.48	4	5.48	32	43.84
Menominee.....	9					6	66.67
Midland.....	52	1	1.92	2	3.85	25	48.08
Missaukee.....	21					12	57.14
Monroe.....	310	15	4.81	43	13.87	129	41.61
Montcalm.....	198	9	4.55	19	9.60	91	45.96
Muskegon.....	171	1	.58	5	2.92	80	46.78
Nemadji.....	78	3	3.85	7	8.97	34	43.59
Oakland.....	331	22	6.65	60	18.13	78	23.56
Oceana.....	76	3	3.95	6	7.89	27	35.53
Ogemaw.....	6			1	16.67	2	33.33
Ontonagon.....	33			1	3.03	14	42.42
Osceola.....	89	2	2.25	3	3.37	52	58.43
Otsego.....	2					2	100.00
Ottawa.....	249	16	6.43	26	10.44	112	44.98
Presque Isle.....	26					9	34.62
Roscommon.....	6					1	16.67
Saginaw.....	524	23	4.39	31	5.92	228	43.51
Sanilac.....	135	6	4.44	8	5.93	64	47.41
Schoolcraft.....	4	1	25.00	1	25.00	3	75.00
Shiawassee.....	137	4	2.92	18	13.14	39	28.47
St. Clair.....	319	16	5.02	34	10.66	131	41.07
St. Joseph.....	204	9	4.41	30	14.71	49	24.02
Tuscola.....	150	5	3.33	13	8.67	60	40.00
Van Buren.....	248	10	4.03	38	15.32	73	29.44
Washtenaw.....	330	37	11.21	73	22.12	87	26.36
Wayne.....	1,949	101	5.18	162	8.31	881	45.29
Wexford.....	86	1	1.16	1	1.16	39	45.35

\* Except townships not represented by returns of deaths, see Exhibit H, page 136.





3	5	3	2	1	3	1	1	2	13	18	17	16	...	...	19 Unknown.
6	10	13	19	11	7	14	13	13	157	18	17	16	...	...	157 Total.
1	3	5	6	5	1	6	2	3	57	8	8	9	...	...	57 Married.
3	5	3	11	5	3	7	9	5	71	5	5	6	...	...	71 Single.
...	...	...	...	...	...	...	...	...	17	4	1	1	...	...	17 Widowed.
2	2	2	1	1	2	1	2	1	12	...	...	...	...	...	12 Unknown.
4	6	5	7	6	4	7	6	4	62	4	4	3	...	...	62 Total.
...	...	...	...	...	...	...	...	...	21	2	1	2	...	...	21 Married.
3	3	3	2	2	3	3	3	1	33	2	3	3	...	...	33 Single.
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1 Widowed.
1	1	1	1	1	1	1	1	1	7	...	...	...	...	...	7 Unknown.
81	101	121	147	117	109	123	123	126	1,422	120	120	130	4	...	1,422 Total.
55	60	64	88	78	65	73	68	63	831	76	63	76	2	...	831 Married.
21	37	41	40	32	36	38	43	54	465	46	44	...	...	...	465 Single.
4	4	13	17	6	7	11	7	8	105	9	9	1	...	...	105 Widowed.
1	...	3	2	1	1	1	5	1	20	2	1	1	...	...	20 Unknown.
49	53	61	81	58	57	69	65	64	735	57	67	3	...	...	735 Total.
34	34	29	46	41	35	39	37	31	444	41	32	40	2	...	444 Married.
13	16	22	22	15	17	23	21	20	238	20	22	...	...	...	238 Single.
3	3	9	11	2	4	7	5	6	64	5	5	4	...	...	64 Widowed.
...	...	1	2	...	1	...	2	1	9	...	...	...	...	...	9 Unknown.
32	45	60	66	59	52	54	58	62	657	49	63	1	...	...	657 Total.
21	26	35	42	37	30	31	31	32	337	32	31	36	...	...	337 Married.
9	21	19	18	17	19	15	22	28	228	26	22	...	...	...	228 Single.
1	1	4	6	4	3	4	2	2	41	4	5	1	...	...	41 Widowed.
1	...	2	...	1	...	1	3	1	11	2	...	...	...	...	11 Unknown.

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[illegible]







1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1</
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[illegible]



TABLE XXVIII.—CONTINUED.—Deaths from Consumption, 1878.

MONTHS, 1878.												AGES IN PERIODS OF YEARS,—1878.												SEX AND OCCUPATION.	CONJUGAL CONDITION.	YEAR, 1878.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
49	53	61	81	53	57	69	65	64	71	57	67	3	755	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	755	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....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Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.
38	2	23	76	123	113	81	64	42	48	35	32	19	32	16	4	5	7









EXHIBIT Q.—*The Average Age of the Inhabitants of Michigan, of both Sexes, of each Sex, and the difference between the Sexes, for All Living June 1, 1870, and All Returned as having Died during the Year ending June 1, 1870, as Compiled from the U. S. Census of that date; for All Returned as having Died from Consumption during the Years 1870 to 1878, inclusive, for all returned as having died from All Causes during the years 1870 to 1878, inclusive; as shown by the Registration Returns; for All Living Aged 20 and Over as per Census June 1, 1870; for All Aged 20 and Over whose Ages and Occupations were stated in the Registration Returns of Deaths for the Years 1870 to 1878, inclusive, and for the Native and Foreign-born Inhabitants Returned as having Died during the Years 1873 to 1878, inclusive.*

	YEAR ENDING:	AVERAGE AGE IN YEARS AND HUNDRETHS OF A YEAR.			
		Total.	Males.	Fe- males.	Excess, Males.
Deaths, as per Census.....	{ June 1, 1870. }	24.79	25.17	24.39	.78
Living, as per Census.....		24.32	24.91	23.68	1.23
All Living aged 20 and over, per Census.....		38.23	38.61	37.80	.81
Deaths, as shown by Registration Returns.....	{ Dec. 31, 1870. }	23.50	24.05	22.89	1.16
Deaths from Consumption, by Registration Returns.....		34.95	36.89	33.14	3.75
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		51.01	52.45	49.96	2.49
"Average years of life" after the age of 20 years, as shown by Table VII., page 197, Report for 1872, plus 20 years,—indicating the "Average Age at Death" of all who died aged 20 years and over according to that Life Table.....			63.72	62.02	1.70
Deaths, as shown by Registration Returns.....	{ Dec. 31, 1871. }	25.63	26.78	24.50	2.28
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		51.44	52.79	46.45	6.34
Deaths, as shown by Registration Returns.....	{ Dec. 31, 1872. }	24.17	25.09	23.17	1.92
Deaths from Consumption, by Registration Returns.....		35.05	39.10	31.19	7.91
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		50.73	51.90	47.08	4.82
All who died aged 20 years and over, as shown by Regis- tration Returns.....		49.72	51.57	47.42	4.25
Deaths, as shown by Registration Returns.....	{ Dec. 31, 1873. }	31.20	31.95	30.14	1.81
Deaths of Native-born Inhabitants, as shown by Regis- tration Returns.....		27.25	27.76	26.71	1.05
Deaths of Foreign-born Inhabitants, as shown by Regis- tration Returns.....		43.87	40.68	42.35	-1.67
Deaths from Consumption, by Registration Returns.....		37.81	40.20	35.77	4.43
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		50.17	56.51	48.27	8.24
All who died aged 20 years and over, as shown by Regis- tration Returns.....		49.87	51.48	47.66	3.82
Deaths, as shown by Registration Returns.....	{ Dec. 31, 1874. }	25.33	25.78	24.09	.83
Deaths of Native-born Inhabitants, as shown by Regis- tration Returns.....		20.26	23.99	20.25	3.74
Deaths of Foreign-born Inhabitants, as shown by Regis- tration Returns.....		47.15	47.99	46.13	1.86
Deaths from Consumption, by Registration Returns.....		36.48	39.90	33.44	6.46
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		50.77	52.70	48.23	4.47
All who died aged 20 years and over, as shown by Regis- tration Returns.....		50.89	52.84	48.72	4.12
Deaths, as shown by Registration Returns.....	{ Dec. 31, 1875. }	25.32	26.31	24.36	1.95
Deaths of Native-born Inhabitants, as shown by Regis- tration Returns.....		20.17	20.73	19.88	.85
Deaths of Foreign-born Inhabitants, as shown by Regis- tration Returns.....		46.90	48.68	44.49	4.19
Deaths from Consumption, by Registration Returns.....		35.77	38.19	33.58	4.61
All aged 20 and over, whose Occupations were stated in Registration Returns of Deaths.....		51.07	53.29	47.87	5.42
All who died aged 20 years and over, as shown by Regis- tration Returns.....		50.65	52.79	48.06	4.73
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		50.68	53.86	47.61	6.25
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		50.77	52.37	48.54	3.83

## EXHIBIT Q.—CONTINUED.

	YEAR ENDING:	AVERAGE AGE IN YEARS AND HUNDREDTHS OF A YEAR.			
		Total.	Males.	Fe- males.	Excess, Males.
Deaths, as shown by Registration Returns.....	Dec. 31, 1878.	25.83	26.79	25.04	1.75
Deaths of Native-born Inhabitants, as shown by Registration Returns.....		20.86	21.34	20.60	.74
Deaths of Foreign-born Inhabitants, as shown by Registration Returns.....		47.33	48.91	46.68	2.23
Deaths from Consumption, by Registration Returns.....		35.70	40.20	33.40	6.80
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		51.93	54.00	49.89	4.11
All who died aged 20 years and over, as shown by Registration Returns.....		51.94	53.91	49.88	4.03
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		51.09	54.46	48.92	5.54
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		52.25	53.70	51.96	1.74
Deaths, as shown by Registration Returns.....	Dec. 31, 1877.	25.89	26.44	25.44	1.00
Deaths of Native-born Inhabitants, as shown by Registration Returns.....		20.30	20.22	20.57	-.35
Deaths of Foreign-born Inhabitants, as shown by Registration Returns.....		49.31	50.31	48.00	2.31
Deaths from Consumption, by Registration Returns.....		36.34	39.42	33.94	5.48
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		51.71	53.89	49.55	4.34
All who died aged 20 years and over, as shown by Registration Returns.....		51.88	54.03	49.66	4.38
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		51.25	54.13	48.43	5.70
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		53.01	53.95	51.78	2.17
Deaths, as shown by Registration Returns.....	Dec. 31, 1878.	26.41	26.99	25.99	1.00
Deaths of Native-born Inhabitants, as shown by Registration Returns.....		20.74	21.20	21.10	.10
Deaths of Foreign-born Inhabitants, as shown by Registration Returns.....		49.75	50.96	48.85	2.11
Deaths from Consumption, by Registration Returns.....		36.67	40.95	33.25	7.70
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		52.45	54.21	50.41	3.80
All who died aged 20 years and over, as shown by Registration Returns.....		52.40	54.17	50.57	3.60
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		51.01	54.20	49.57	4.63
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		53.84	54.88	53.15	1.73

Table XXIX. contains data concerning the influence of occupations upon the death-rate. Of all the decedents in 1878 aged 20 years and over, the average age was 52.39 years. Excepting Class VIII.,—Soldiers,—of which there was only one decedent in 1878, the decedents in Class VI. show the smallest average age, being only 41.83 years; and excepting the unemployed, Class I.,—cultivators of the earth,—shows the greatest average age, being 58.73 years.



TABLE XXIX.—*Exhibiting, for Decedents Aged 20 Years and Over, in 1878, by Classified Occupations, the Number and the Aggregate and Average Ages of All returned, of All whose Occupations and Ages were returned, and of All whose Occupations were not Specified, One-half of a Year added to Age of each Person in place of Months and Days excluded.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
	ALL AGED 20 YEARS AND OVER.....	5,535	305,700.50	55.23
	ALL SPECIFIED OCCUPATIONS,—AGED 20 YEARS AND OVER.....	5,272	276,459.50	52.45
	OCCUPATIONS UNSPECIFIED,—AGED 20 YEARS AND OVER...	563	29,201.00	51.87
I.	CULTIVATORS OF THE EARTH.....	1,444	84,799.50	58.73
II.	ACTIVE MECHANICS ABROAD.....	163	8,552.50	52.47
III.	ACTIVE MECHANICS IN SHOPS.....	187	10,063.50	53.83
IV.	INACTIVE MECHANICS IN SHOPS.....	102	5,334.50	52.30
V.	LABORERS,—NO SPECIAL TRADE.....	412	18,812.50	45.66
VI.	AGENTS, LABORERS ABROAD, ETC.....	117	4,994.50	41.83
VII.	SEAFARING MEN.....	21	1,007.50	47.98
VIII.	SOLDIERS.....	1	32.50	32.50
IX.	BUSINESS MEN.....	206	9,920.50	48.16
X.	PROFESSIONAL MEN.....	76	4,052.50	53.40
XI.	UNEMPLOYED.....	97	5,721.50	58.99
XII.	FEMALES.....	2,446	123,299.00	50.41
I.	CULTIVATORS OF THE EARTH.....	1,444	84,799.50	58.73
	Farmers.....	1,425	83,720.00	58.76
	Farm Laborers.....	1	59.50	59.50
	Farmers, Retired.....	4	280.00	70.00
	Farmers' Sons.....	2	45.00	22.50
	Fruit-growers.....	2	81.00	40.50
	Gardeners.....	10	614.00	61.40
II.	ACTIVE MECHANICS ABROAD.....	163	8,552.50	52.47
	Brick-layers.....	2	82.00	41.00
	Carpenters.....	95	5,042.00	53.07
	Carpenters and Joiners.....	3	182.00	60.67
	Joiners.....	3	178.00	59.33
	Masons.....	30	1,687.00	56.23
	Painters.....	22	897.00	40.77
	Ship-builders.....	1	42.50	42.50
	Ship-carpenters.....	5	330.00	66.00
	Stone-masons.....	2	112.00	56.00

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1878.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
III.	ACTIVE MECHANICS IN SHOPS.....	187	10,065.50	53.83
	Bakers.....	3	197.00	65.67
	Blacksmiths.....	30	2,380.00	61.03
	Boiler-makers.....	1	42.50	42.50
	Brewers.....	10	472.00	47.20
	Broom-makers.....	1	26.50	26.50
	Brush-makers.....	1	39.50	39.50
	Cabinet-makers.....	3	173.00	57.67
	Carriage-makers.....	3	151.00	50.33
	Confectioners.....	2	94.00	47.00
	Cooks.....	1	26.50	26.50
	Coopers.....	11	607.00	55.18
	Dyers.....	1	65.50	65.50
	Engineers.....	14	545.00	38.93
	Finishers.....	2	43.00	21.50
	Gunsmiths.....	1	54.50	54.50
	Locksmiths.....	2	109.00	54.50
	Machinists.....	13	634.00	48.77
	Marble-cutters.....	2	88.00	44.00
	Mechanics.....	28	1,589.00	56.75
	Millers.....	7	418.00	59.71
	Millwrights.....	6	389.00	64.83
	Model-makers.....	3	189.00	63.00
	Molders.....	3	110.00	36.67
	Piano-makers.....	1	71.50	71.50
	Plumbers.....	2	68.00	34.00
	Saw-makers.....	1	28.50	28.50
	Sawyers.....	3	140.00	46.67
	Shingle-makers.....	1	33.50	33.50
	Smelters.....	1	44.50	44.50
	Silversmiths.....	1	63.50	63.50
	Stone-cutters.....	2	115.00	57.50
	Tanners.....	1	46.50	46.50
	Tinkers.....	1	70.50	70.50
	Tinsmiths.....	5	241.00	48.20
	Wagon-makers.....	7	414.00	59.14
	Wax-workers.....	1	56.50	56.50
	Weavers.....	2	173.00	86.50
	Wheelwrights.....	1	56.50	56.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1878.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
IV.	INACTIVE MECHANICS IN SHOPS.....	102	5,334.50	52.30
	Barbers.....	5	220.00	44.00
	Oigar-makers.....	8	252.00	31.50
	Glove-makers.....	1	38.50	38.50
	Harness-makers.....	7	343.00	49.00
	Jewelers.....	11	488.00	44.36
	Printers.....	7	270.00	38.57
	Shoe-makers.....	30	1,956.00	65.20
	Tailors.....	27	1,608.00	59.56
	Telegraph Operators.....	6	159.00	26.50
V.	LABORERS—NO SPECIAL TRADES.....	412	18,813.50	45.66
	Blasters.....	1	47.50	47.50
	Bosses in Lumber Camps.....	1	35.50	35.50
	Brick-makers.....	3	194.00	64.67
	Colliers.....	1	52.50	52.50
	Firemen.....	1	31.50	31.50
	Firemen in Mills.....	1	28.50	28.50
	Grave-diggers.....	1	57.50	57.50
	House-workers.....	1	20.50	20.50
	Laborers.....	354	16,829.00	46.13
	Miners.....	34	1,431.00	42.09
	Packers.....	1	67.50	67.50
	Porters.....	1	48.50	48.50
	Raftsmen.....	1	23.50	23.50
	Salt-packers.....	1	62.50	62.50
	Scalers.....	1	33.50	33.50
	Servants.....	1	22.50	22.50
	Stewards.....	1	23.50	23.50
	Warehouse-men.....	1	38.50	38.50
	Watchmen.....	1	31.50	31.50
	Well-diggers.....	1	55.50	55.50
	Whitewashers.....	1	73.50	73.50
	Wood-choppers.....	1	55.50	55.50
	Woodsmen.....	2	50.00	25.00
VI.	AGENTS, LABORERS ABROAD, ETC.....	117	4,894.50	41.83
	Agents.....	6	258.00	43.00
	Auctioneers.....	1	53.50	53.50



TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1878.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
VI.	AGENTS, LABORERS ABROAD, ETC.—(Continued.)			
	Baggage-men.....	2	93.00	46.50
	Brakemen.....	12	335.00	27.92
	Butchers.....	10	462.00	46.20
	Car Inspectors.....	1	41.50	41.50
	Coachmen.....	1	24.50	24.50
	Commercial Travelers.....	1	27.50	27.50
	Constables.....	2	68.00	34.00
	Draymen.....	2	87.00	43.50
	Drivers.....	1	53.50	53.50
	Drovers.....	2	62.00	31.00
	Farriers.....	1	56.50	56.50
	Foremen.....	1	48.50	48.50
	Hostlers.....	1	40.50	40.50
	Hunters.....	4	152.00	38.00
	Light-house Keepers.....	1	34.50	34.50
	Livery-keepers.....	4	177.00	44.25
	Lumbermen.....	20	954.00	47.70
	Mine Captains.....	2	96.00	48.00
	Musicians.....	1	35.50	35.50
	Peddlers.....	6	305.00	50.83
	Policemen.....	3	139.00	46.33
	R. R. Conductors.....	2	66.00	33.00
	R. R. Employes.....	3	116.00	38.67
	R. R. Engineers.....	2	77.00	38.50
	R. R. Men.....	6	210.00	35.00
	Sextons.....	1	76.50	76.50
	Stall-keepers in Market.....	1	41.50	41.50
	Teamsters.....	12	477.00	39.75
	Toll-keepers.....	2	128.00	64.00
	Traveling Agents.....	2	65.00	32.50
	Yard-masters.....	1	33.50	33.50
VII.	SEAFARING MEN.....	21	1,007.50	47.98
	Captains of Tugs.....	1	42.50	42.50
	Fishermen.....	4	214.00	53.50
	Sailors.....	14	606.00	42.29
	Sea Captains.....	1	79.50	79.50
	Steamboat Captains.....	1	65.50	65.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1878.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
VIII.	SOLDIERS.....	1	32.50	32.50
	Soldiers, Retired.....	1	32.50	32.50
IX.	BUSINESS MEN.....	206	9,920.50	48.16
	Bankers.....	4	222.00	55.50
	Book-keepers.....	8	312.00	39.00
	Boot and Shoe Dealers.....	1	39.50	39.50
	Builders.....	1	70.50	70.50
	Cattle Dealers.....	1	25.50	25.50
	Clerks.....	28	844.00	30.14
	Clothiers.....	2	130.00	65.00
	Collectors.....	1	28.50	28.50
	Contractors.....	2	118.00	59.00
	County Clerks.....	1	54.50	54.50
	Deputy U. S. Marshals.....	1	63.50	63.50
	Druggists.....	7	279.00	39.86
	Express Agents.....	2	116.00	58.00
	Fur Dealers.....	1	77.50	77.50
	Furniture Dealers.....	1	61.50	61.50
	Grain Dealers.....	3	191.00	63.67
	Grocers.....	9	496.00	55.11
	Hardware Merchants.....	1	33.50	33.50
	Hatters.....	1	74.50	74.50
	Hotel Clerks.....	1	35.50	35.50
	Hotel-keepers.....	21	1,026.00	48.86
	Insurance Agents.....	3	137.00	45.67
	Jobbers.....	1	79.50	79.50
	Justices of the Peace.....	3	239.00	76.47
	Land Agents.....	1	58.50	58.50
	Landlords.....	2	102.00	51.00
	Liquor Merchants.....	1	42.50	42.50
	Lumber Inspectors.....	1	69.50	69.50
	Manufacturers.....	10	496.00	49.60
	Merchants.....	42	2,287.00	54.45
	Merchants, Retired.....	2	148.00	74.00
	Mill-owners.....	1	60.50	60.50
	Music Dealers.....	1	29.50	29.50
	Notaries Public.....	1	66.50	66.50



TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1878.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
IX.	BUSINESS MEN—(Continued.)			
	Photographers.....	1	34.50	34.50
	Postmasters.....	1	57.50	57.50
	Real Estate Dealers.....	2	105.00	52.50
	Registers of Deeds.....	1	31.50	31.50
	Salesmen.....	4	130.00	32.50
	Saloon-keepers.....	25	1,143.00	45.72
	Stave and Barrel Manufacturers.....	1	29.50	29.50
	Ticket Agents.....	1	69.50	69.50
	Undertakers.....	2	106.00	53.00
	Wood Dealers.....	1	64.50	64.50
	Woolen Manufacturers.....	1	62.50	62.50
X.	PROFESSIONAL MEN.....	76	4,058.50	53.40
	Artists.....	1	30.50	30.50
	Attorneys.....	2	87.00	43.50
	Capitalists.....	1	56.50	56.50
	Dentists.....	3	116.00	38.67
	Editors.....	1	30.50	30.50
	Judges.....	1	65.50	65.50
	Lawyers.....	9	477.00	53.00
	Ministers.....	15	970.00	64.67
	Music Teachers.....	1	35.50	35.50
	Physicians.....	25	1,441.00	57.64
	Students.....	3	63.00	22.67
	Teachers.....	14	681.00	48.64
XI.	UNEMPLOYED.....	97	5,721.50	58.98
	Gentlemen.....	1	80.50	80.50
	Paupers.....	4	191.00	47.75
	Retired.....	2	144.00	72.00
	Tramps.....	2	46.00	23.00
	Unemployed.....	88	5,260.00	59.77
XII.	FEMALES.....	2,446	123,299.00	50.41
	Astrologists.....	1	42.50	42.50
	Bakers.....	1	24.50	24.50
	Basket-makers.....	2	147.00	73.50
	Blacksmiths.....	1	25.50	25.50



TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1878.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
XII.	FEMALES—(Continued.)			
	Book-keepers.....	2	77.00	38.50
	Carpenters' Wives.....	3	110.00	36.67
	Courtesans.....	1	36.50	36.50
	Domestics.....	21	809.00	38.52
	Dress-makers.....	14	521.00	37.21
	Farmers.....	196	10,594.00	54.03
	Farmers' Daughters.....	5	127.00	25.40
	Farmers' Wives.....	123	6,431.00	52.28
	Gardeners.....	1	62.50	62.50
	Gardeners' Wives.....	1	26.50	26.50
	Gunsmiths' Wives.....	1	57.50	57.50
	Hair-dressers.....	1	33.50	33.50
	Hotel Servants.....	2	53.00	26.50
	Housekeepers.....	573	29,945.00	52.26
	Housewives.....	1,043	50,446.00	48.37
	House-workers.....	79	3,764.00	47.65
	Knitters.....	1	88.50	88.50
	Laborers.....	11	479.00	43.55
	Laborers' Wives.....	2	89.00	44.50
	Landladies.....	2	92.00	46.00
	Laundresses.....	2	124.00	62.00
	Lawyers.....	1	53.50	53.50
	Lawyers' Wives.....	2	88.00	44.00
	Masons' Wives.....	1	47.50	47.50
	Matrons.....	8	375.00	46.88
	Mechanics' Wives.....	2	126.00	63.00
	Merchants.....	5	217.00	43.40
	Merchants' Wives.....	1	33.50	33.50
	Midwives.....	3	183.00	61.00
	Mitliners.....	9	320.00	35.56
	Ministers.....	1	38.50	38.50
	Music Dealers.....	1	22.50	22.50
	Music Teachers.....	1	24.50	24.50
	Nurses.....	4	270.00	67.50
	Paupers.....	1	78.50	78.50
	Physicians.....	3	160.00	53.33

TABLE XXIX.—CONTINUED.—*Occupation of Decedents in 1878.*

CLASS.	OCCUPATIONS,—1878.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
XII.	FEMALES—(Continued.)			
	Physicians' Wives.....	2	53.00	27.50
	Printers' Wives.....	1	39.50	39.50
	Retired .....	3	212.00	70.67
	Saleswomen.....	1	34.50	34.50
	Seamstresses .....	14	482.00	34.43
	Servants.....	12	371.00	30.92
	Spinsters .....	3	216.00	72.00
	Students .....	1	20.50	20.50
	Tailoresses.....	7	467.00	66.71
	Teachers.....	25	796.00	31.84
	Unemployed.....	210	12,960.00	59.13
	Washerwomen.....	1	53.50	53.50
	Weavers.....	8	576.00	72.00
	Wives.....	17	788.00	46.06





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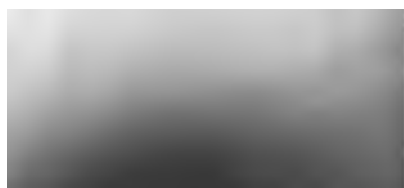
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